

**REPORT NUMBER: 208-MGA-2005-019**

**VEHICLE SAFETY COMPLIANCE TESTING  
FOR  
FMVSS 208, OCCUPANT CRASH PROTECTION**

**DaimlerChrysler Corp.  
2005 Mercedes C230 Passenger Car  
NHTSA No.: C50500**

**PREPARED BY:  
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**Test Dates: September 30, 2004 – June 7, 2006**

**Report Date: November 9, 2006**

**FINAL REPORT**

**PREPARED FOR:  
U.S. DEPARTMENT OF TRANSPORTATION  
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION  
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OFFICE OF VEHICLE SAFETY COMPLIANCE  
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<b>16. Abstract</b> Compliance tests were conducted on the subject 2005 Mercedes C230 in accordance with the specifications of the Office of Vehicle Safety Compliance Test Procedure No. TP208-12 for the determination of FMVSS 208 compliance. Test failures identified were as follows:  <b>TEST FAILURES:</b> The neck tension-extension (Nte) was more than the maximum allowed (1.0) for the position 1, chin on module, 5 <sup>th</sup> percentile driver low risk deployment test. (S25.4(a)(5))			
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## **SECTION 1**

### **PURPOSE OF COMPLIANCE TEST**

This Federal Motor Vehicle Safety Standard (FMVSS) 208 compliance test is part of a program conducted for the National Highway Traffic Safety Administration (NHTSA) by MGA Research Corporation (MGA) under Contract No. DTNH22-03-D-11002. The purpose of this test was to determine whether the subject vehicle, a 2005 Mercedes C230, NHTSA No. C50500, meets certain performance requirements of FMVSS 208. The compliance test was conducted in accordance with OVSC Laboratory Test Procedure No. TP208-12 dated January 14, 2003.

## SECTION 2

### TESTS PERFORMED

Test Vehicle: 2005 Mercedes C230  
 Test Program: FMVSS 208 Compliance

NHTSA No.: C50500  
 Test Dates: 9/30/04-6/7/06

The following checked items indicate the tests that were performed:

- |                                     |     |   |
|-------------------------------------|-----|---|
| <input checked="" type="checkbox"/> | 1.  | Rear outboard seating position seat belts (S4.1.1.2(b) & (S4.2.4))  |
| <input checked="" type="checkbox"/> | 2.  | Air bag labels (S4.5.1)   |
| <input checked="" type="checkbox"/> | 3.  | Readiness indicator (S4.5.2)  |
| <input checked="" type="checkbox"/> | 4.  | Passenger air bag manual cut-off device (S4.5.4)  |
| <input checked="" type="checkbox"/> | 5.  | Lap belt lockability (S7.1.1.5)   |
| <input checked="" type="checkbox"/> | 6.  | Seat belt warning system (S7.3)   |
| <input checked="" type="checkbox"/> | 7.  | Seat belt contact force (S7.4.4)  |
| <input checked="" type="checkbox"/> | 8.  | Seat belt latch plate access (S7.4.4)   |
| <input checked="" type="checkbox"/> | 9.  | Seat belt retraction (S7.4.5)   |
| <input checked="" type="checkbox"/> | 10. | Seat belt guides and hardware (S7.4.6)  |
| <input checked="" type="checkbox"/> | 11. | Suppression tests with 12-month-old CRABI dummy (Part 572, Subpart R)   |
| <input checked="" type="checkbox"/> | 12. | Suppression tests with newborn infant (Part 572, Subpart K)   |
| <input type="checkbox"/>            | 13. | Suppression tests with 3-year-old dummy (Part 572, Subpart P)   |
| <input type="checkbox"/>            | 14. | Suppression tests with 6-year-old dummy (Part 572, Subpart N)   |
| <input checked="" type="checkbox"/> | 15. | Test of reactivation of the passenger air bag system with an unbelted 5 <sup>th</sup> percentile female dummy |
| <input type="checkbox"/>            | 16. | Low risk deployment test with 12-month-old dummy (Part 572, Subpart R)  |
| <input checked="" type="checkbox"/> | 17. | Low risk deployment test with 3-year-old dummy (Part 572, Subpart P)  |
| <input type="checkbox"/>            | 18. | Low risk deployment test with 6-year-old dummy (Part 572, Subpart N)  |
| <input checked="" type="checkbox"/> | 19. | Low risk deployment test with 5 <sup>th</sup> female dummy (Part 572, Subpart O)                              |
| <input type="checkbox"/>            | 20. | Impact Tests  |
| <input type="checkbox"/>            |     | Frontal Oblique   |
| <input type="checkbox"/>            |     | Belted 50 <sup>th</sup> male dummy driver and passenger (0 to 48 kmph) (S5.1.1(a))                            |
| <input type="checkbox"/>            |     | Unbelted 50 <sup>th</sup> male dummy driver and passenger (0 to 48 kmph) (S5.1.2(a)(1))                       |
| <input type="checkbox"/>            |     | Unbelted 50 <sup>th</sup> male dummy driver and passenger (32 to 40 kmph) (S5.1.2(a) (1) or S5.1.2(b))        |
| <input type="checkbox"/>            |     | Frontal 0°  |
| <input type="checkbox"/>            |     | Belted 50 <sup>th</sup> male dummy driver (0 to 48 kmph) (S5.1.1.(b)(1) or S5.1.1(a))                         |
| <input type="checkbox"/>            |     | Belted 50 <sup>th</sup> male dummy passenger (0 to 48 kmph) (S5.1.1.(b)(1) or S5.1.1(a))                      |
| <input type="checkbox"/>            |     | Belted 5 <sup>th</sup> female dummy driver (0 to 48 kmph) (S16.1(a))  |
| <input type="checkbox"/>            |     | Belted 5 <sup>th</sup> female dummy passenger (0 to 48 kmph) (S16.1(a))                                       |
| <input type="checkbox"/>            |     | Belted 50 <sup>th</sup> male dummy driver and passenger (0 to 56 kmph) (S5.1.1.(b)(2))                        |
| <input type="checkbox"/>            |     | Unbelted 50 <sup>th</sup> male dummy driver and passenger (0 to 48 kmph) (S5.1.2(a) (1))                      |
| <input type="checkbox"/>            |     | Unbelted 50 <sup>th</sup> male dummy driver (32 to 40 kmph) (S5.1.2.(a)(2) or S5.1.2(b))                      |

- ☐ Unbelted 50<sup>th</sup> male dummy passenger (32 to 40 kmph)  
(S5.1.2.(a)(2) or S5.1.2(b))
  - ☐ Unbelted 5<sup>th</sup> female dummy driver (32 to 40 kmph) (S16.1(b))
  - ☐ Unbelted 5<sup>th</sup> female dummy passenger (32 to 40 kmph) (S16.1(b))
  - ☐ 40% Offset 0° Belted 5<sup>th</sup> male dummy driver and passenger (0 to 40 kmph) (S18.1)
- ☐ 21. Sled Test: unbelted 50<sup>th</sup> male dummy driver and passenger (S13)
  - ☐ 22. FMVSS 204 Indicant Test
  - ☐ 23. FMVSS 212 Indicant Test
  - ☐ 24. FMVSS 219 Indicant Test
  - ☐ 25. FMVSS 301 Frontal Indicant Test

The low risk deployment tests were recorded using high speed film and high speed digital video.

The vehicle did not appear to meet the performance requirements to which it was tested.

The neck tension-extension (Nte) was more than the maximum allowed (1.0) for the position 1, chin on module, 5<sup>th</sup> percentile driver low risk deployment test. (S25.4(a)(5))

**SECTION 3**  
**INJURY RESULT SUMMARY FOR FMVSS 208 TESTS**

Test Vehicle: 2005 Mercedes C230  
 Test Program: FMVSS 208 Compliance

NHTSA No.: C50500  
 Test Dates: 3/10 & 4/05/05

**5<sup>th</sup> Percentile Female Low Risk Deployments**

**5<sup>th</sup> Percentile Female SN 506 Position 1 (Chin On Module) 3-10-05 Trial 1**

Injury Criteria	Max. Allowable Injury Assessment Values	Measured Value
HIC15	700	67
Peak Nij (Nte)	1.0	1.0 (1.006)
Time (ms)	NA	27.1
Peak Nij (Ntf)	1.0	0.3
Time (ms)	NA	40.5
Peak Nij (Nce)	1.0	0.9
Time (ms)	NA	137.6
Peak Nij (Ncf)	1.0	0.1
Time (ms)	NA	237.8
Neck Tension	2070 N	1411
Neck Compression	2520 N	846
Chest g	60 g	14
Chest Displacement	52 mm	14
Left Femur	6805 N	199
Right Femur	6805 N	227

Second stage fire time of 200 ms; Injuries calculated on 0 ms to 325 ms

**5<sup>th</sup> Percentile Female SN 511 Position 1 (Chin On Module) 4-5-05 Trial 2**

Injury Criteria	Max. Allowable Injury Assessment Values	Measured Value
HIC15	700	65
Peak Nij (Nte)	1.0	1.1 (1.074)
Time (ms)	NA	26.2
Peak Nij (Ntf)	1.0	0.1
Time (ms)	NA	4.9
Peak Nij (Nce)	1.0	0.9
Time (ms)	NA	142.3
Peak Nij (Ncf)	1.0	0.1
Time (ms)	NA	254.3
Neck Tension	2070 N	1458
Neck Compression	2520 N	1053
Chest g	60 g	17
Chest Displacement	52 mm	14
Left Femur	6805 N	193
Right Femur	6805 N	375

Second stage fire time of 200 ms; Injuries calculated on 0 ms to 325 ms

### SECTION 3 ...(continued)

#### INJURY RESULT SUMMARY FOR FMVSS 208 TESTS

Test Vehicle: 2005 Mercedes C230  
 Test Program: FMVSS 208 Compliance

NHTSA No.: C50500  
 Test Dates: 4/20 & 7/07/05

#### 5<sup>th</sup> Percentile Female Low Risk Deployments

##### 5<sup>th</sup> Percentile Female SN 505 Position 1 (Chin On Module) 4-20-05 Trial 3

Injury Criteria	Max. Allowable Injury Assessment Values	Measured Value
HIC15	700	55
Peak Nij (Nte)	1.0	1.2 (1.151)
Time (ms)	NA	27.6
Peak Nij (Ntf)	1.0	0.2
Time (ms)	NA	39.9
Peak Nij (Nce)	1.0	0.5
Time (ms)	NA	145.7
Peak Nij (Ncf)	1.0	0.2
Time (ms)	NA	181.3
Neck Tension	2070 N	1434
Neck Compression	2520 N	430
Chest g	60 g	16
Chest Displacement	52 mm	14
Left Femur	6805 N	1042
Right Femur	6805 N	517

Second stage fire time of 200 ms; Injuries calculated on 0 ms to 325 ms

##### 5<sup>th</sup> Percentile Female SN 505 Position 1 (Chin On Module) 7-7-05 Trial 4

Injury Criteria	Max. Allowable Injury Assessment Values	Measured Value
HIC15	700	66
Peak Nij (Nte)	1.0	1.1 (1.118)
Time (ms)	NA	28.8
Peak Nij (Ntf)	1.0	0.0
Time (ms)	NA	282.0
Peak Nij (Nce)	1.0	0.7
Time (ms)	NA	142.5
Peak Nij (Ncf)	1.0	0.2
Time (ms)	NA	180.5
Neck Tension	2070 N	1344
Neck Compression	2520 N	549
Chest g	60 g	11
Chest Displacement	52 mm	13
Left Femur	6805 N	122
Right Femur	6805 N	334

Second stage fire time of 200 ms; Injuries calculated on 0 ms to 325 ms

### SECTION 3 ...(continued)

#### INJURY RESULT SUMMARY FOR FMVSS 208 TESTS

Test Vehicle: 2005 Mercedes C230  
 Test Program: FMVSS 208 Compliance

NHTSA No.: C50500  
 Test Dates: 7/07/05

#### 5<sup>th</sup> Percentile Female Low Risk Deployments

##### 5<sup>th</sup> Percentile Female SN 506 Position 1 (Chin On Module) 7-07-05 Trial 5

Injury Criteria	Max. Allowable Injury Assessment Values	Measured Value
HIC15	700	60
Peak Nij (Nte)	1.0	0.8
Time (ms)	NA	26.2
Peak Nij (Ntf)	1.0	0.3
Time (ms)	NA	35.0
Peak Nij (Nce)	1.0	0.6
Time (ms)	NA	143.4
Peak Nij (Ncf)	1.0	0.2
Time (ms)	NA	181.1
Neck Tension	2070 N	1231
Neck Compression	2520 N	508
Chest g	60 g	13
Chest Displacement	52 mm	13
Left Femur	6805 N	214
Right Femur	6805 N	254

Second stage fire time of 200 ms; Injuries calculated on 0 ms to 325 ms

##### 5<sup>th</sup> Percentile Female SN 510 Position 1 (Chin On Module) 7-07-05 Trial 6

Injury Criteria	Max. Allowable Injury Assessment Values	Measured Value
HIC15	700	64
Peak Nij (Nte)	1.0	0.8
Time (ms)	NA	28.2
Peak Nij (Ntf)	1.0	0.3
Time (ms)	NA	39.1
Peak Nij (Nce)	1.0	0.6
Time (ms)	NA	141.7
Peak Nij (Ncf)	1.0	0.2
Time (ms)	NA	179.2
Neck Tension	2070 N	1195
Neck Compression	2520 N	576
Chest g	60 g	13
Chest Displacement	52 mm	12
Left Femur	6805 N	571
Right Femur	6805 N	419

Second stage fire time of 200 ms; Injuries calculated on 0 ms to 325 ms

### SECTION 3 ...(continued)

#### INJURY RESULT SUMMARY FOR FMVSS 208 TESTS

Test Vehicle: 2005 Mercedes C230  
 Test Program: FMVSS 208 Compliance

NHTSA No.: C50500  
 Test Dates: 9/23/05

#### 5<sup>th</sup> Percentile Female Low Risk Deployments

##### 5<sup>th</sup> Percentile Female SN 507 Position 1 (Chin On Module) 9-23-05 Trial 7

Injury Criteria	Max. Allowable Injury Assessment Values	Measured Value
HIC15	700	47
Peak Nij (Nte)	1.0	0.9 (0.888)
Time (ms)	NA	30.1
Peak Nij (Ntf)	1.0	0.2
Time (ms)	NA	43.3
Peak Nij (Nce)	1.0	0.6
Time (ms)	NA	150.8
Peak Nij (Ncf)	1.0	0.2
Time (ms)	NA	178.9
Neck Tension	2070 N	1177
Neck Compression	2520 N	644
Chest g	60 g	14
Chest Displacement	52 mm	12
Left Femur	6805 N	766
Right Femur	6805 N	1191

Second stage fire time of 200 ms; Injuries calculated on 0 ms to 325 ms

##### 5<sup>th</sup> Percentile Female SN 510 Position 1 (Chin On Module) 9-23-05 Trial 8

Injury Criteria	Max. Allowable Injury Assessment Values	Measured Value
HIC15	700	98
Peak Nij (Nte)	1.0	0.9 (0.891)
Time (ms)	NA	26.6
Peak Nij (Ntf)	1.0	0.1
Time (ms)	NA	240.7
Peak Nij (Nce)	1.0	1.1 (1.084)
Time (ms)	NA	134.5
Peak Nij (Ncf)	1.0	0.1
Time (ms)	NA	250.6
Neck Tension	2070 N	1557
Neck Compression	2520 N	1125
Chest g	60 g	16
Chest Displacement	52 mm	13
Left Femur	6805 N	213
Right Femur	6805 N	198

Second stage fire time of 200 ms; Injuries calculated on 0 ms to 325 ms



### SECTION 3 ...(continued)

#### INJURY RESULT SUMMARY FOR FMVSS 208 TESTS

Test Vehicle: 2005 Mercedes C230  
 Test Program: FMVSS 208 Compliance

NHTSA No.: C50500  
 Test Dates: 9/23/05

#### 5<sup>th</sup> Percentile Female Low Risk Deployments

##### 5<sup>th</sup> Percentile Female SN 505 Position 1 (Chin On Module) 9-23-05 Trial 9

Injury Criteria	Max. Allowable Injury Assessment Values	Measured Value
HIC15	700	104
Peak Nij (Nte)	1.0	1.0 (1.038)
Time (ms)	NA	27.0
Peak Nij (Ntf)	1.0	0.1
Time (ms)	NA	230.5
Peak Nij (Nce)	1.0	1.0 (1.016)
Time (ms)	NA	133.9
Peak Nij (Ncf)	1.0	0.1
Time (ms)	NA	252.1
Neck Tension	2070 N	1478
Neck Compression	2520 N	1094
Chest g	60 g	13
Chest Displacement	52 mm	12
Left Femur	6805 N	275
Right Femur	6805 N	231

Second stage fire time of 200 ms; Injuries calculated on 0 ms to 325 ms

##### 5<sup>th</sup> Percentile Female SN 516 Position 1 (Chin On Module) 9-23-05 Trial 10

Injury Criteria	Max. Allowable Injury Assessment Values	Measured Value
HIC15	700	77
Peak Nij (Nte)	1.0	1.1 (1.075)
Time (ms)	NA	27.8
Peak Nij (Ntf)	1.0	0.3
Time (ms)	NA	42.2
Peak Nij (Nce)	1.0	1.0 (0.961)
Time (ms)	NA	136.5
Peak Nij (Ncf)	1.0	0.1
Time (ms)	NA	174.6
Neck Tension	2070 N	1426
Neck Compression	2520 N	906
Chest g	60 g	14
Chest Displacement	52 mm	15
Left Femur	6805 N	289
Right Femur	6805 N	254

Second stage fire time of 200 ms; Injuries calculated on 0 ms to 325 ms

### SECTION 3 ...(continued)

#### INJURY RESULT SUMMARY FOR FMVSS 208 TESTS

Test Vehicle: 2005 Mercedes C230  
 Test Program: FMVSS 208 Compliance

NHTSA No.: C50500  
 Test Dates: 5/10 & 6/07/06

#### 5<sup>th</sup> Percentile Female Low Risk Deployments

##### 5<sup>th</sup> Percentile Female SN 075 Position 1 (Chin On Module) 5-10-06 Trial 11

Injury Criteria	Max. Allowable Injury Assessment Values	Measured Value
HIC15	700	14
Peak Nij (Nte)	1.0	0.6
Time (ms)	NA	33.4
Peak Nij (Ntf)	1.0	0.1
Time (ms)	NA	5.3
Peak Nij (Nce)	1.0	0.3
Time (ms)	NA	177.7
Peak Nij (Ncf)	1.0	0.1
Time (ms)	NA	225.4
Neck Tension	2070 N	803
Neck Compression	2520 N	352
Chest g	60 g	11
Chest Displacement	52 mm	8
Left Femur	6805 N	86
Right Femur	6805 N	109

Second stage fire time of 200 ms; Injuries calculated on 0 ms to 325 ms

##### 5<sup>th</sup> Percentile Female SN 075 Position 1 (Chin On Module) 6-7-06 Trial 12

Injury Criteria	Max. Allowable Injury Assessment Values	Measured Value
HIC15	700	100
Peak Nij (Nte)	1.0	0.5
Time (ms)	NA	28.3
Peak Nij (Ntf)	1.0	0.3
Time (ms)	NA	37.0
Peak Nij (Nce)	1.0	1.0 (0.95)
Time (ms)	NA	131.7
Peak Nij (Ncf)	1.0	0.1
Time (ms)	NA	242.3
Neck Tension	2070 N	1318
Neck Compression	2520 N	817
Chest g	60 g	21
Chest Displacement	52 mm	14
Left Femur	6805 N	119
Right Femur	6805 N	172

Second stage fire time of 200 ms; Injuries calculated on 0 ms to 325 ms

### SECTION 3 ...(continued)

#### INJURY RESULT SUMMARY FOR FMVSS 208 TESTS

Test Vehicle: 2005 Mercedes C230  
 Test Program: FMVSS 208 Compliance

NHTSA No.: C50500  
 Test Dates: 4/05/05

#### 5<sup>th</sup> Percentile Female Low Risk Deployments

#### 5<sup>th</sup> Percentile Female SN 511 Position 2 (Chin On Rim) 4-5-05

Injury Criteria	Max. Allowable Injury Assessment Values	Measured Value
HIC15	700	31
Peak Nij (Nte)	1.0	0.6
Time (ms)	NA	12.3
Peak Nij (Ntf)	1.0	0.3
Time (ms)	NA	30.4
Peak Nij (Nce)	1.0	0.4
Time (ms)	NA	167.0
Peak Nij (Ncf)	1.0	0.0
Time (ms)	NA	284.6
Neck Tension	2070 N	1293
Neck Compression	2520 N	113
Chest g	60 g	29
Chest Displacement	52 mm	29
Left Femur	6805 N	285
Right Femur	6805 N	297

Second stage fire time of 200 ms; Injuries calculated on 0 ms to 325 ms

### SECTION 3 ...(continued)

#### INJURY RESULT SUMMARY FOR FMVSS 208 TESTS

Test Vehicle: 2005 Mercedes C230  
 Test Program: FMVSS 208 Compliance

NHTSA No.: C50500  
 Test Dates: 3/10 & 4/20/05

#### 3-Year-Old Low Risk Deployments

##### 3-Year-Old SN 032 Position 1 (Chest On Instrument Panel) 3-10-05

Injury Criteria	Max. Allowable Injury Assessment Values	Measured Value
HIC15	570	14
Peak Nij (Nte)	1.0	0.4
Time (ms)	NA	62.9
Peak Nij (Ntf)	1.0	0.2
Time (ms)	NA	13.2
Peak Nij (Nce)	1.0	0.1
Time (ms)	NA	24.0
Peak Nij (Ncf)	1.0	0.0
Time (ms)	NA	0.4
Neck Tension	1130 N	454
Neck Compression	1380 N	48
Chest g	55 g	9
Chest Displacement	34 mm	14

Second stage fire time of 150 ms; Injuries calculated on 0 ms to 100 ms

##### 3-Year-Old SN 032 Position 2 (Head On Instrument Panel) 4-20-05

Injury Criteria	Max. Allowable Injury Assessment Values	Measured Value
HIC15	570	20
Peak Nij (Nte)	1.0	0.0
Time (ms)	NA	0.8
Peak Nij (Ntf)	1.0	0.1
Time (ms)	NA	15.1
Peak Nij (Nce)	1.0	0.1
Time (ms)	NA	39.9
Peak Nij (Ncf)	1.0	0.5
Time (ms)	NA	11.0
Neck Tension	1130 N	4
Neck Compression	1380 N	560
Chest g	55 g	10
Chest Displacement	34 mm	1

Second stage fire time of 150 ms; Injuries calculated on 0 ms to 100 ms

## SECTION 4

### DISCUSSION OF TESTS

Test Vehicle: 2005 Mercedes C230  
Test Program: FMVSS 208 Compliance

NHTSA No.: C50500  
Test Dates: 9/30/04-6/7/06

A blanket and visor were not used in the suppression testing because they did not affect the weight sensing system used on the vehicle.

The neck tension-extension (Nte) was more than the maximum allowed (1.0) for the position 1, chin on module, 5<sup>th</sup> percentile driver low risk deployment test. (S25.4(a)(5)). Ten position 1 low risk deployment tests were performed on NHTSA's test vehicle for this investigation. Six of the ten trials had neck tension-extension injury measures that exceeded 1.000. These trials were: Trial 1 = 1.006, Trial 2 = 1.074, Trial 3 = 1.151, Trial 4 = 1.118, Trial 9 = 1.038, and Trial 10 = 1.075. Trial 2 used the original steering column and steering wheel even though they had already been used for position 1 and position 2, chin on rim, low risk deployment tests. All other trials used a new steering column and steering wheel. In other trials, there were variations on leg position and taping the dummy in place.

Mercedes Benz issued a recall (NHTSA 05V560000; Mercedes Benz recall no. 2006020005) to remedy this situation. Low risk deployment trial 11 was conducted with the recall remedy and passed all the injury measure requirements.

The C230 could also be manufactured with a 4-spoke steering wheel. All the trials were performed using the 3 spoke steering wheel. The air bag from the 4-spoke wheel was not included in the recall. An additional trial (12<sup>th</sup>) was performed with this wheel to confirm it complied with the low risk deployment requirements. It passed all the injury measure requirements.

The frontal crash test was not conducted at the request of the COTR.

**SECTION 5**  
**TEST DATA SHEETS**

Test Vehicle: 2005 Mercedes C230  
Test Program: FMVSS 208 Compliance

NHTSA No.: C50500  
Test Dates: 9/30/04-6/7/06

# DATA SHEET 1

## COTR VEHICLE WORK ORDER

Test Vehicle: 2005 Mercedes C230  
 Test Program: FMVSS 208 Compliance

NHTSA No.: C50500  
 Test Dates: 9/30/04-6/7/06

COTR Signature: Charles R. Case

Test to be performed for this vehicle are checked below:

<input checked="" type="checkbox"/>	1. Rear Outboard Seating Position Seat Belts (S4.1.2(b)) & (S4.2.4)
<input checked="" type="checkbox"/>	2. Air Bag Labels (S4.5.1)
<input checked="" type="checkbox"/>	3. Readiness Indicator (S4.5.2)
<input checked="" type="checkbox"/>	4. Passenger Air Bag Manual Cut-off Device (S4.5.4)
<input checked="" type="checkbox"/>	5. Lap Belt Lockability (S7.1.1.5)
<input checked="" type="checkbox"/>	6. Seat Belt Warning System (S7.3)
<input checked="" type="checkbox"/>	7. Seat Belt Contact Force (S7.4.4)
<input checked="" type="checkbox"/>	8. Seat Belt Latch Plate Access (S7.4.4)
<input checked="" type="checkbox"/>	9. Seat Belt Retraction (S7.4.5)
<input checked="" type="checkbox"/>	10. Seat Belt Guides and Hardware (S7.4.6)
<input checked="" type="checkbox"/>	11. Suppression tests with 12-month-old CRABI dummy (Part 572, Subpart R) using the following indicated child restraints.

### Section B

<input checked="" type="checkbox"/>	Britax Handle with Care 191	<input checked="" type="checkbox"/>	Full Rearward	<input checked="" type="checkbox"/>	Mid Position	<input checked="" type="checkbox"/>	Full Forward
	Century Assura 4553		Full Rearward		Mid Position		Full Forward
	Century Avanta SE 41530		Full Rearward		Mid Position		Full Forward
	Century Smart Fit 4543		Full Rearward		Mid Position		Full Forward
	Cosco Arriva 02727		Full Rearward		Mid Position		Full Forward
	Cosco Opus 35 02603		Full Rearward		Mid Position		Full Forward
	Evenflo Discovery Adjust Right 212		Full Rearward		Mid Position		Full Forward
<input checked="" type="checkbox"/>	Evenflo First Choice 204	<input checked="" type="checkbox"/>	Full Rearward	<input checked="" type="checkbox"/>	Mid Position	<input checked="" type="checkbox"/>	Full Forward
	Evenflo On My Way Position Right V 282		Full Rearward		Mid Position		Full Forward
<input checked="" type="checkbox"/>	Graco Infant 8457	<input checked="" type="checkbox"/>	Full Rearward	<input checked="" type="checkbox"/>	Mid Position	<input checked="" type="checkbox"/>	Full Forward

### Section C

<input checked="" type="checkbox"/>	Britax Roundabout 161	<input checked="" type="checkbox"/>	Full Rearward	<input checked="" type="checkbox"/>	Mid Position	<input checked="" type="checkbox"/>	Full Forward
<input checked="" type="checkbox"/>	Century Encore 4612	<input checked="" type="checkbox"/>	Full Rearward	<input checked="" type="checkbox"/>	Mid Position	<input checked="" type="checkbox"/>	Full Forward
	Century STE 1000 4416		Full Rearward		Mid Position		Full Forward
	Cosco Olympian 02803		Full Rearward		Mid Position		Full Forward
	Cosco Touriva 02519		Full Rearward		Mid Position		Full Forward
	Evenflo Horizon V 425		Full Rearward		Mid Position		Full Forward
<input checked="" type="checkbox"/>	Evenflo Medallion 254	<input checked="" type="checkbox"/>	Full Rearward	<input checked="" type="checkbox"/>	Mid Position	<input checked="" type="checkbox"/>	Full Forward
<input checked="" type="checkbox"/>	12. Suppression tests with newborn infant (Part 572, Subpart K) using the following indicated child restraints.						

### Section A

<input checked="" type="checkbox"/>	Cosco Dream Ride 02-719	<input checked="" type="checkbox"/>	Full Rearward	<input checked="" type="checkbox"/>	Mid Position	<input checked="" type="checkbox"/>	Full Forward
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13. Suppression tests with 3-year-old dummy (Part 572, Subpart P) using the following indicated child restraints where a child restraint is required.

Section C

Britax Roundabout 161	Full Rearward	Mid Position	Full Forward
Century Encore 4612	Full Rearward	Mid Position	Full Forward
Century STE 1000 4416	Full Rearward	Mid Position	Full Forward
Cosco Olympian 02803	Full Rearward	Mid Position	Full Forward
Cosco Touriva 02519	Full Rearward	Mid Position	Full Forward
Evenflo Horizon V 425	Full Rearward	Mid Position	Full Forward
Evenflo Medallion 254	Full Rearward	Mid Position	Full Forward

Section D

Britax Roadster 9004	Full Rearward	Mid Position	Full Forward
Century Next Step 4920	Full Rearward	Mid Position	Full Forward
Cosco High Back Booster 02-442	Full Rearward	Mid Position	Full Forward
Evenflo Right Fit 245	Full Rearward	Mid Position	Full Forward

14. Suppression tests with representative 3-year-old child using the following indicated child restraints where a child restraint is required. (Appendix H, Data Sheet 16H and 17H)

Section C

Britax Roundabout 161	Full Rearward	Mid Position	Full Forward
Century Encore 4612	Full Rearward	Mid Position	Full Forward
Century STE 1000 4416	Full Rearward	Mid Position	Full Forward
Cosco Olympian 02803	Full Rearward	Mid Position	Full Forward
Cosco Touriva 02519	Full Rearward	Mid Position	Full Forward
Evenflo Horizon V 425	Full Rearward	Mid Position	Full Forward
Evenflo Medallion 254	Full Rearward	Mid Position	Full Forward

Section D

Britax Roadster 9004	Full Rearward	Mid Position	Full Forward
Century Next Step 4920	Full Rearward	Mid Position	Full Forward
Cosco High Back Booster 02-442	Full Rearward	Mid Position	Full Forward
Evenflo Right Fit 245	Full Rearward	Mid Position	Full Forward

15. Suppression tests with 3-year-old dummy (Part 572, Subpart P) in the following positions

Sitting on seat with back against seat back (S22.2.2.1)
Sitting on seat with back against reclined seat back (S22.2.2.2)
Sitting on seat with back not against seat back (S22.2.2.3)
Sitting on seat edge, spine vertical, hands by the child's side (S22.2.2.4)
Standing on seat, facing forward (S22.2.2.5)
Kneeling on seat facing forward (S22.2.2.6)
Kneeling on seat facing rearward (S22.2.2.7)
Lying on seat (S22.2.2.8)

16. Suppression tests with representative 3-year-old child in the following positions

Sitting on seat with back against seat back (S22.2.2.1)
Sitting on seat with back against reclined seat back (S22.2.2.2)
Sitting on seat with back not against seat back (S22.2.2.3)
Sitting on seat edge, spine vertical, hands by the child's side (S22.2.2.4)
Standing on seat, facing forward (S22.2.2.5)
Kneeling on seat facing forward (S22.2.2.6)
Kneeling on seat facing rearward (S22.2.2.7)
Lying on seat (S22.2.2.8)



<input type="checkbox"/>	17.	Suppression tests with 6-year-old dummy (Part 572, Subpart N) using the following indicated child restraints where a child restraint is required.			
		Section D			
		<input type="checkbox"/> Britax Roadster 9004	<input type="checkbox"/> Full Rearward	<input type="checkbox"/> Mid Position	<input type="checkbox"/> Full Forward
		<input type="checkbox"/> Century Next Step 4920	<input type="checkbox"/> Full Rearward	<input type="checkbox"/> Mid Position	<input type="checkbox"/> Full Forward
		<input type="checkbox"/> Cosco High Back Booster 02-442	<input type="checkbox"/> Full Rearward	<input type="checkbox"/> Mid Position	<input type="checkbox"/> Full Forward
		<input type="checkbox"/> Evenflo Right Fit 245	<input type="checkbox"/> Full Rearward	<input type="checkbox"/> Mid Position	<input type="checkbox"/> Full Forward
<input type="checkbox"/>	18.	Suppression tests with representative 6-year-old child using the following indicated child restraints where a child restraint is required.			
		Section D			
		<input type="checkbox"/> Britax Roadster 9004	<input type="checkbox"/> Full Rearward	<input type="checkbox"/> Mid Position	<input type="checkbox"/> Full Forward
		<input type="checkbox"/> Century Next Step 4920	<input type="checkbox"/> Full Rearward	<input type="checkbox"/> Mid Position	<input type="checkbox"/> Full Forward
		<input type="checkbox"/> Cosco High Back Booster 02-442	<input type="checkbox"/> Full Rearward	<input type="checkbox"/> Mid Position	<input type="checkbox"/> Full Forward
		<input type="checkbox"/> Evenflo Right Fit 245	<input type="checkbox"/> Full Rearward	<input type="checkbox"/> Mid Position	<input type="checkbox"/> Full Forward
<input type="checkbox"/>	19.	Suppression tests with 6-year-old dummy (Part 572, Subpart N) in the following positions			
		<input type="checkbox"/> Sitting on seat with back against seat back (S22.2.2.1)			
		<input type="checkbox"/> Sitting on seat with back against reclined seat back (S22.2.2.2)			
		<input type="checkbox"/> Sitting on seat edge, spine vertical, hands by the child's side (S22.2.2.4)			
		<input type="checkbox"/> Sitting back in the seat and leaning on the right front passenger door (S24.2.3)			
<input type="checkbox"/>	20.	Suppression tests with representative 6-year-old child in the following positions			
		<input type="checkbox"/> Sitting on seat with back against seat back (S22.2.2.1)			
		<input type="checkbox"/> Sitting on seat with back against reclined seat back (S22.2.2.2)			
		<input type="checkbox"/> Sitting on seat edge, spine vertical, hands by the child's side (S22.2.2.4)			
		<input type="checkbox"/> Sitting back in the seat and leaning on the right front passenger door (S24.2.3)			
<input checked="" type="checkbox"/>	21.	Test of Reactivation of the Passenger Air Bag System with an Unbelted 5 <sup>th</sup> percentile female dummy (S20.3, 22.3, S24.3). Perform this test after the following suppression tests: After each restraint.			
<input type="checkbox"/>	22.	Test of Reactivation of the passenger air bag system with a representative 5 <sup>th</sup> percentile female (S20.3, 22.3, S24.3). Perform this test after the following suppression tests:			
<input type="checkbox"/>	23.	Low risk deployment test with 12-month-old dummy (Part 572, Subpart R) using the following indicated child restraints.			
		Section B			
		<input type="checkbox"/> Britax Handle with Care 191	<input type="checkbox"/> Full Rearward	<input type="checkbox"/> Mid Position	<input type="checkbox"/> Full Forward
		<input type="checkbox"/> Century Assura 4553	<input type="checkbox"/> Full Rearward	<input type="checkbox"/> Mid Position	<input type="checkbox"/> Full Forward
		<input type="checkbox"/> Century Avanta SE 41530	<input type="checkbox"/> Full Rearward	<input type="checkbox"/> Mid Position	<input type="checkbox"/> Full Forward
		<input type="checkbox"/> Century Smart Fit 4543	<input type="checkbox"/> Full Rearward	<input type="checkbox"/> Mid Position	<input type="checkbox"/> Full Forward
		<input type="checkbox"/> Cosco Arriva 02727	<input type="checkbox"/> Full Rearward	<input type="checkbox"/> Mid Position	<input type="checkbox"/> Full Forward
		<input type="checkbox"/> Cosco Opus 35 02603	<input type="checkbox"/> Full Rearward	<input type="checkbox"/> Mid Position	<input type="checkbox"/> Full Forward
		<input type="checkbox"/> Evenflo Discovery Adjust Right 212	<input type="checkbox"/> Full Rearward	<input type="checkbox"/> Mid Position	<input type="checkbox"/> Full Forward
		<input type="checkbox"/> Evenflo First Choice 204	<input type="checkbox"/> Full Rearward	<input type="checkbox"/> Mid Position	<input type="checkbox"/> Full Forward
		<input type="checkbox"/> Evenflo On My Way Position Right V 282	<input type="checkbox"/> Full Rearward	<input type="checkbox"/> Mid Position	<input type="checkbox"/> Full Forward
		<input type="checkbox"/> Graco Infant 8457	<input type="checkbox"/> Full Rearward	<input type="checkbox"/> Mid Position	<input type="checkbox"/> Full Forward

## Section C

<input type="checkbox"/>	<input type="checkbox"/>	Britax Roundabout 161	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	<input type="checkbox"/>	Century Encore 4612	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	<input type="checkbox"/>	Century STE 1000 4416	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	<input type="checkbox"/>	Cosco Olympian 02803	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	<input type="checkbox"/>	Cosco Touriva 02519	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	<input type="checkbox"/>	Evenflo Horizon V 425	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	<input type="checkbox"/>	Evenflo Medallion 254	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input checked="" type="checkbox"/>	<input type="checkbox"/>	24. Low risk deployment test with 3-year-old dummy (Part 572, Subpart P) in the following positions						
	<input checked="" type="checkbox"/>	Position 1						
	<input checked="" type="checkbox"/>	Position 2						
<input type="checkbox"/>	<input type="checkbox"/>	25. Low risk deployment test with 6-year-old dummy (Part 572, Subpart N) in the following positions						
	<input type="checkbox"/>	Position 1						
	<input type="checkbox"/>	Position 2						
<input checked="" type="checkbox"/>	<input type="checkbox"/>	26. Low risk deployment test with 5 <sup>th</sup> percentile female dummy (Part 572, Subpart O) in the following positions						
	<input checked="" type="checkbox"/>	Position 1						
	<input checked="" type="checkbox"/>	Position 2						
<input type="checkbox"/>	<input type="checkbox"/>	27. Impact Tests						
	<input type="checkbox"/>	Frontal Oblique – Test Speed:						
		<input type="checkbox"/> Belted 50 <sup>th</sup> male dummy driver and passenger (0 to 48 kmph) (S5.1.1(a))						
		<input type="checkbox"/> Unbelted 50 <sup>th</sup> male dummy driver and passenger (0 to 48 kmph) (S5.1.2(a)(1))						
		<input type="checkbox"/> Unbelted 50 <sup>th</sup> male dummy driver and passenger (32 to 40 kmph) (S5.1.2(a) (1) or S5.1.2(b))						
	<input type="checkbox"/>	Frontal 0° - Test Speed:						
		<input type="checkbox"/> Belted 50 <sup>th</sup> male dummy driver (0 to 48 kmph) (S5.1.1.(b)(1) or S5.1.1(a))						
		<input type="checkbox"/> Belted 50 <sup>th</sup> male dummy passenger (0 to 48 kmph) (S5.1.1.(b)(1) or S5.1.1(a))						
		<input type="checkbox"/> Belted 5 <sup>th</sup> female dummy driver (0 to 48 kmph) (S16.1(a))						
		<input type="checkbox"/> Belted 5 <sup>th</sup> female dummy passenger (0 to 48 kmph) (S16.1(a))						
		<input type="checkbox"/> Belted 50 <sup>th</sup> male dummy driver and passenger (0 to 56 kmph) (S5.1.1.(b)(2))						
		<input type="checkbox"/> Unbelted 50 <sup>th</sup> male dummy driver and passenger (0 to 48 kmph) (S5.1.2(a) (1))						
		<input type="checkbox"/> Unbelted 50 <sup>th</sup> male dummy driver (32 to 40 kmph) (S5.1.2.(a)(2) or S5.1.2(b))						
		<input type="checkbox"/> Unbelted 50 <sup>th</sup> male dummy passenger (32 to 40 kmph) (S5.1.2.(a)(2) or S5.1.2(b))						
		<input type="checkbox"/> Unbelted 5 <sup>th</sup> female dummy driver (32 to 40 kmph) (S16.1(b))						
		<input type="checkbox"/> Unbelted 5 <sup>th</sup> female dummy passenger (32 to 40 kmph) (S16.1(b))						
	<input type="checkbox"/>	40% Offset 0° Belted 5 <sup>th</sup> male dummy driver and passenger (0 to 40 kmph) (S18.1) – Test Speed:						
<input type="checkbox"/>	<input type="checkbox"/>	28. Sled Test: Unbelted 50 <sup>th</sup> male dummy driver and passenger (S13)						
<input type="checkbox"/>	<input type="checkbox"/>	29. FMVSS 204 Indicant Test						
<input type="checkbox"/>	<input type="checkbox"/>	30. FMVSS 212 Indicant Test						
<input type="checkbox"/>	<input type="checkbox"/>	31. FMVSS 219 Indicant Test						
<input type="checkbox"/>	<input type="checkbox"/>	32. FMVSS 301 Frontal Indicant Test						

**DATA SHEET 2**  
**REPORT OF VEHICLE CONDITION**

Test Vehicle: 2005 Mercedes C230  
Test Program: FMVSS 208 Compliance

NHTSA No.: C50500  
Test Date: 9/30/04-6/7/06

CONTRACT NO. DTNH22- 03-D-11002 Date: 6/13/06  
FROM (Lab and rep name): MGA Research Corporation  
TO: NHTSA, OVSC (NVS-220)

PURPOSE: ( ) Initial Receipt ( ) Received via Transfer (X) Present vehicle condition

MODEL YEAR/MAKE/MODEL/BODY STYLE: 2005 Mercedes C230 Passenger Car  
MANUFACTURE DATE: 7/04  
NHTSA NO. C50500 GVWR: 1940 kg (4280 lbs)  
BODY COLOR: RED GAWR (Fr): 940 kg (2075 lbs)  
VIN: WDBRF40J75F607909 GAWR (Rr): 1000 kg (2205 lbs)

ODOMETER READINGS: ARRIVAL (miles): 57 DATE: 9/24/04  
COMPLETION (miles): 100 DATE: 6/7/06

PURCHASE PRICE: (\$) 32,671.00

DEALER'S NAME: Concours Motors, 1400 W. Silver Spring Dr. Glendale, WI 53209

- A. All options listed on window sticker are present on the test vehicle:  
X Yes      No
- B. Tires and wheel rims are new and the same as listed: X Yes      No
- C. There are no dents or other interior or exterior flaws: X Yes      No
- D. The vehicle has been properly prepared and is in running condition:  
X Yes      No
- E. Keyless remote is available and working:      Yes X No
- F. The glove box contains an owner's manual, warranty document, consumer information, and extra set of keys: X Yes      No
- G. Proper fuel filler cap is supplied on the test vehicle: X Yes      No
- H. Using permanent marker, identify vehicle with NHTSA number and FMVSS test type(s) on roof line above driver door or for school buses, place a placard with NHTSA number inside the windshield and to the exterior front and rear side of bus:  
X Yes      No
- I. Place vehicle in storage area: X Yes      No
- J. Inspect the vehicle's interior and exterior, including all windows, seats, doors, etc. to confirm that each system is complete and functional per the manufacturer's specifications. Any damage, misadjustment, or other unusual condition that could influence the test program or test results shall be recorded. Report any abnormal condition to the NHTSA COTR before beginning any test:  
X Vehicle OK      Conditions reported below

## REPORT OF VEHICLE CONDITION AT THE COMPLETION OF TESTING

LIST OF FMVSS TESTS PERFORMED BY THIS LAB: FMVSS 208 Low Risk  
Deployments

VEHICLE: 2005 Mercedes C230 NHTSA NO. C50500  
Passenger Car

REMARKS:

Equipment that is no longer on the test vehicle as noted on previous page: None

Explanation for equipment removal:

Test Vehicle Condition:

Air bags deployed, Vehicle has had numerous steering column and steering wheel  
replacements, Wiring harness is suspect, Vehicle is fully intact and runs

RECORDED BY: Jeff Lewandowski DATE: 6/13/2006  
APPROVED BY: David Winkelbauer DATE: 6/13/2006

#####

### RELEASE OF TEST VEHICLE

The vehicle described above is released from MGA to be delivered to:

Date: Time: Odometer:

Lab Rep's Signature:

Title:

Carrier/Customer Rep:

Date:

### DATA SHEET 3

#### CERTIFICATION LABEL AND TIRE PLACARD INFORMATION

Test Vehicle: 2005 Mercedes C230  
Test Program: FMVSS 208 Compliance  
Test Technician: Nick Kosinski

NHTSA No.: C50500  
Test Date: 3/10/05

Certification Label	
Manufacturer:	DaimlerChrysler Corp.
Date of Manufacture:	7/04
VIN:	WDBRF40J75F607909
Vehicle Certified As (Pass. Car/MPV/Truck/Bus):	Passenger Car
Front Axle GVWR:	940 kg (2075 lbs)
Rear Axle GVWR:	1000 kg (2205 lbs)
Total GVWR:	1940 kg (4280 lbs)

Tire Placard	
Not applicable, vehicle is not a passenger car and does not have a tire placard.	Passenger Car
This is not a passenger car, but all or part of this information is still contained on a vehicle label and is reported here. (From Owner's Manual)	Passenger Car
Vehicle Capacity Weight:	392 kg (865 lbs)
Designated Seating Capacity Front:	2
Designated Seating Capacity Rear:	3
Total Designated Seating Capacity:	5
Recommended Cold Tire Inflation Pressure Front:	196 kpa (28 psi)
Recommended Cold Tire Inflation Pressure Rear:	224 kpa (32 psi)
Recommended Tire Size:	P225/45R17

Signature: *Nick Kosinski*

Date: 3/10/05

#### DATA SHEET 4

##### REAR OUTBOARD SEATING POSITION SEAT BELTS

Test Vehicle: 2005 Mercedes C230  
Test Program: FMVSS 208 Compliance  
Test Technician: Wayne Dahlke

NHTSA No.: C50500  
Test Date: 9/30/04

	Yes	No
Do all rear outboard seating positions have Type 2 seat belts?	X	

If NO, describe the seat belt installed, the seat location, and any other information about the seat that would explain why a Type 2 seat belt was not installed.

REMARKS:

Signature: Wayne Dahlke

Date: 9/30/04

## DATA SHEET 5

### AIR BAG LABELS (S4.5.1)

Test Vehicle: 2005 Mercedes C230  
 Test Program: FMVSS 208 Compliance  
 Test Technician: Wayne Dahlke

NHTSA No.: C50500  
 Test Date: 9/30/04

<input checked="" type="checkbox"/>	1.	Air bag maintenance label and owner's manual instructions: (S4.5.1(a))
<input checked="" type="checkbox"/>	1.1	Does the manufacturer recommend periodic maintenance or replacement of the air bag?
		<input type="checkbox"/> Yes, go to 1.2
		<input checked="" type="checkbox"/> No – go to 2
<input type="checkbox"/>	1.2	Does the vehicle have a label specifying air bag maintenance or replacement?
		<input type="checkbox"/> Yes – Pass
		<input type="checkbox"/> No – Fail
<input type="checkbox"/>	1.3	Does the label contain one of the following?
		<input type="checkbox"/> Yes – Pass
		<input type="checkbox"/> No – Fail
		Check applicable schedule:
		___ Schedule on label specifies month and year (Record date_____)
		___ Schedule on label specified vehicle mileage (Record mileage_____)
		___ Schedule on label specifies interval measured from date on certification label (Record interval_____)
<input type="checkbox"/>	1.4	Is the label permanently affixed within the passenger compartment such that it cannot be removed without destroying or defacing the label or the sunvisor?
		<input type="checkbox"/> Yes – Pass
		<input type="checkbox"/> No – Fail
<input type="checkbox"/>	1.5	Is the label lettered in English?
		<input type="checkbox"/> Yes – Pass
		<input type="checkbox"/> No – Fail
<input type="checkbox"/>	1.6	Is the label in block capitals and numerals?
		<input type="checkbox"/> Yes – Pass
		<input type="checkbox"/> No – Fail
<input type="checkbox"/>	1.7	Are the letters and numerals at least 3/32 inches high?
		<input type="checkbox"/> Yes – Pass
		<input type="checkbox"/> No – Fail
<input type="checkbox"/>	1.8	Does the owner's manual set forth the recommended schedule for maintenance or replacement?
<input checked="" type="checkbox"/>	2.	Does the owner's manual: (S4.5.1(f))
<input checked="" type="checkbox"/>	2.1	Include a description of the vehicle's air bag system in an easily understandable format?
		<input checked="" type="checkbox"/> Yes – Pass
		<input type="checkbox"/> No – Fail
<input checked="" type="checkbox"/>	2.2	Include a statement that the vehicle is equipped with an air bag and a lap/shoulder belt at the front outboard seating position?
		<input checked="" type="checkbox"/> Yes – Pass
		<input type="checkbox"/> No – Fail

- ☒ 2.3 Include a statement that the air bag is a supplement restraint at the front outboard seating position?  
☒ Yes – Pass  
☐ No – Fail
- ☒ 2.4 Emphasize that all occupants, including the driver, should always wear their seat belts whether or not an air bag is also provided at their seating positions to minimize the risk of severe injury or death in the event of a crash?  
☒ Yes – Pass  
☐ No – Fail
- ☒ 2.5 Provide any necessary precautions regarding the proper positioning of occupants, including children, at seating positions equipped with air bags to ensure maximum safety protection for those occupants?  
☒ Yes – Pass  
☐ No – Fail
- ☒ 2.6 Explain that no objects should be placed over or near the air bag on the steering wheel or on the instrument panel, because any such objects could cause harm if the vehicle is in a crash severe enough to cause the air bag to inflate?  
☒ Yes – Pass  
☐ No – Fail
- ☒ 2.7 Is the vehicle certified to meet the requirements of S14.5, S15, S17, S19, S21, S23, and S25? (Obtain answer from COTR) (S4.5.1(f)(2))  
☒ Yes – (Go to 2.7.1)  
☐ No – (Go to 3.)
- ☒ 2.7.1 Explain the proper functioning of the advanced air bag system? (S4.5.1(f)(2))  
☒ Yes – Pass  
☐ No – Fail
- ☒ 2.7.2 Provide a summary of the actions that may affect the proper functioning of the system? (S4.5.1(f)(2))  
☒ Yes – Pass  
☐ No – Fail
- ☒ 2.7.3 Present and explain the main components of the advanced passenger air bag system? (S4.5.1(f)(2)(i))  
☒ Yes – Pass  
☐ No – Fail
- ☒ 2.7.4 Explain how the components function together as part of the advanced passenger air bag system? (S4.5.1(f)(2)(ii))  
☒ Yes – Pass  
☐ No – Fail
- ☒ 2.7.5 Contain the basic requirements for proper operation, including an explanation of the actions that may affect the proper functioning of the system? (S4.5.1(f)(2)(iii))  
☒ Yes – Pass  
☐ No – Fail
- ☒ 2.7.6 Is the vehicle certified to the requirements of S19.2, S21.2, or 23.2 (automatic suppression)?  
☒ Yes, continue with 2.7.6  
☐ No, go to 2.7.7
- ☒ 2.7.6.1 Contain a complete description of the passenger air bag suppression system installed in the vehicle, including a discussion of any suppression zone? (S4.5.1(f)(2)(iv))  
☒ Yes – Pass  
☐ No – Fail



<input checked="" type="checkbox"/>	2.7.6.2	Discuss the telltale light, specifying its location in the vehicle and explaining when the light is illuminated?
	<input checked="" type="checkbox"/>	Yes – Pass
	<input type="checkbox"/>	No – Fail
<input checked="" type="checkbox"/>	2.7.7	Explain the interaction of the advanced passenger air bag system with other vehicle components, such as seat belts, seats or other components? (S4.5.1(f)(2)(v))
	<input checked="" type="checkbox"/>	Yes – Pass
	<input type="checkbox"/>	No – Fail
<input checked="" type="checkbox"/>	2.7.8	Summarize the expected outcomes when child restraint systems, children and small teenagers or adults are both properly and improperly positioned in the passenger seat, including cautionary advice against improper placement of child restraint systems? (S4.5.1(f)(2)(vi))
	<input checked="" type="checkbox"/>	Yes – Pass
	<input type="checkbox"/>	No – Fail
<input checked="" type="checkbox"/>	2.7.9	Provide information on how to contact the vehicle manufacturer concerning modifications for persons with disabilities that may affect the advanced air bag system? (S4.5.1(f)(2)(vii))
	<input checked="" type="checkbox"/>	Yes – Pass
	<input type="checkbox"/>	No – Fail
<input checked="" type="checkbox"/>	3.	Sun Visor Air Bag Warning Label (S4.5.1(b)) Check only one of the following:
	<input type="checkbox"/>	The vehicle is not certified to meet the requirements of S19, S21, and S23 (Obtain answer from COTR) (S4.5.1(b)(1)) Go to 3.1 and skip 3.2 and 3.3
	<input type="checkbox"/>	The vehicle is certified to meet the requirements of S19, S21, and S23 before 9/1/03. (Obtain answer from COTR) (S4.5.1(b)(2)) Go to 3.2 and skip 3.1 and 3.3
	<input checked="" type="checkbox"/>	The vehicle is certified to meet the requirements of S19, S21, and S23 on 9/1/03 or later. (Obtain answer from COTR) (S4.5.1(b)(3)) Go to 3.3 and skip 3.1 and 3.2
<input type="checkbox"/>	3.1	Vehicles not certified to meet the requirements of S19, S21, and S23.
<input type="checkbox"/>	3.1.1	Is the label permanently affixed (including permanent marking on the visor material or molding into the visor material) to either side of the sun visor at each front outboard seating position such that it cannot be removed without destroying or defacing it? (S4.5.1(b)(1))
	<input type="checkbox"/>	Driver Side, Yes – Pass
	<input type="checkbox"/>	Driver Side, No – Fail
	<input type="checkbox"/>	Passenger Side, Yes – Pass
	<input type="checkbox"/>	Passenger Side, No – Fail

- 3.1.2 Does the label conform in content to the label shown in either Figure 6A or 6B (Figure 6b is for vehicles with passenger air bag on-off switches), as appropriate, at each front outboard seating position? (S4.5.1(b)(1)) (Vehicles without back seats may omit the statement: "The back seat is the safest place for children." (S4.5.1(b)(1)(iv))



Figure 6a. Sun Visor Label Visible When Visor is in Down Position.



Figure 6b. Sun Visor Label Visible When Visor is in Down Position.

- Driver Side, Yes – Pass
- Driver Side, No – Fail
- Passenger Side, Yes – Pass
- Passenger Side, No – Fail
- 3.1.3 Is the label heading area yellow with the word "WARNING" and the alert symbol in black? (S4.5.1(b)(1)(i))
- Driver Side, Yes – Pass
- Driver Side, No – Fail
- Passenger Side, Yes – Pass
- Passenger Side, No – Fail
- 3.1.4 Is the message area white with black text? (S4.5.1(b)(1)(ii))
- Driver Side, Yes – Pass
- Driver Side, No – Fail
- Passenger Side, Yes – Pass
- Passenger Side, No – Fail

<input type="checkbox"/>	3.1.5	Is the message area at least 30 cm <sup>2</sup> ? (S4.5.1(b)(1)(ii)) Driver Side: Length_____, Width_____ Passenger Side: Length_____, Width_____ Actual message area _____ cm <sup>2</sup> <input type="checkbox"/> Driver Side, Yes – Pass <input type="checkbox"/> Driver Side, No – Fail <input type="checkbox"/> Passenger Side, Yes – Pass <input type="checkbox"/> Passenger Side, No – Fail
<input type="checkbox"/>	3.1.6	Is the pictogram black with a red circle and slash on a white background? (S4.5.1(b)(2)(iii)) <input type="checkbox"/> Driver Side, Yes – Pass <input type="checkbox"/> Driver Side, No – Fail <input type="checkbox"/> Passenger Side, Yes – Pass <input type="checkbox"/> Passenger Side, No – Fail
<input type="checkbox"/>	3.1.7	Is the pictogram at least 30 mm in diameter? (S4.5.1(b)(2)(iii)) Actual diameter _____ mm <input type="checkbox"/> Driver Side, Yes – Pass <input type="checkbox"/> Driver Side, No – Fail <input type="checkbox"/> Passenger Side, Yes – Pass <input type="checkbox"/> Passenger Side, No – Fail
<input type="checkbox"/>	3.2	Vehicles certified to meet the requirements of S19, S21, and S23 before 9/1/03.
<input type="checkbox"/>	3.2.1	Is the label permanently affixed (including permanent marking on the visor material or molding into the visor material) to either side of the sun visor at each front outboard seating position such that it cannot be removed without destroying or defacing the label or the sun visor? (S4.5.1(b)(2)) <input type="checkbox"/> Driver Side, Yes – Pass <input type="checkbox"/> Driver Side, No – Fail <input type="checkbox"/> Passenger Side, Yes – Pass <input type="checkbox"/> Passenger Side, No – Fail

- 3.2.2 Does the label conform in content to the label shown in either Figure 8 or 11 at each front outboard seating position? (S4.5.1(b)(2)) (Vehicles without back seats may omit the statement: "The back seat is the safest place for children." (S4.5.1(b)(2)(iv)) Vehicles without back seats or the back seat is too small to accommodate a rear-facing child restraint may omit the statement "Never put a rear-facing child seat in the front." (S4.5.1(b)(2)(v))



Figure 8. Sun Visor Label Visible when Visor is in Down Position.



Figure 11. Sun Visor Label Visible when Visor is in Down Position.

- Driver Side, Yes – Pass
- Driver Side, No – Fail
- Passenger Side, Yes – Pass
- Passenger Side, No – Fail
- 3.2.3 Is the label heading area yellow with the word "WARNING" and the alert symbol in black? (S4.5.1(b)(2)(i))
- Driver Side, Yes – Pass
- Driver Side, No – Fail
- Passenger Side, Yes – Pass
- Passenger Side, No – Fail
- 3.2.4 Is the message area white with black text? (S4.5.1(b)(2)(ii))
- Driver Side, Yes – Pass
- Driver Side, No – Fail
- Passenger Side, Yes – Pass
- Passenger Side, No – Fail

<input type="checkbox"/>	3.2.5	Is the message area at least 30 cm <sup>2</sup> ? (S4.5.1(b)(2)(ii)) Driver Side: Length_____, Width_____ Passenger Side: Length_____, Width_____ Actual message area _____ cm <sup>2</sup>
		<input type="checkbox"/> Driver Side, Yes – Pass
		<input type="checkbox"/> Driver Side, No – Fail
		<input type="checkbox"/> Passenger Side, Yes – Pass
		<input type="checkbox"/> Passenger Side, No – Fail
<input type="checkbox"/>	3.2.6	Is the pictogram black on a white background? (S4.5.1(b)(2)(iii))
		<input type="checkbox"/> Driver Side, Yes – Pass
		<input type="checkbox"/> Driver Side, No – Fail
		<input type="checkbox"/> Passenger Side, Yes – Pass
		<input type="checkbox"/> Passenger Side, No – Fail
<input type="checkbox"/>	3.2.7	Is the pictogram at least 30 mm (1.2 inches) in length? (S4.5.1(b)(2)(iii)) Driver Side: Length_____ Passenger Side: Length_____
		<input type="checkbox"/> Driver Side, Yes – Pass
		<input type="checkbox"/> Driver Side, No – Fail
		<input type="checkbox"/> Passenger Side, Yes – Pass
		<input type="checkbox"/> Passenger Side, No – Fail
<input checked="" type="checkbox"/>	3.3	Vehicles certified to meet the requirements of S19, S21, and S23 on 9/1/03 and later. (S4.5.1(b)(3))
<input checked="" type="checkbox"/>	3.3.1	Is the label permanently affixed (including permanent marking on the visor material or molding into the visor material) to either side of the sun visor at each front outboard seating position such that it cannot be removed without destroying or defacing the label or the sun visor? (S4.5.1(b)(3))
		<input type="checkbox"/> Driver Side, Yes – Pass
		<input checked="" type="checkbox"/> Driver Side, No – Fail
		<input type="checkbox"/> Passenger Side, Yes – Pass
		<input checked="" type="checkbox"/> Passenger Side, No – Fail

- ☒ 3.3.2 Does the label conform in content to the label shown in Figure 11 at each front outboard seating position? (S4.5.1(b)(2)) (Vehicles without back seats may omit the statement: "The back seat is the safest place for children." (S4.5.1(b)(3)(iv)) Vehicles without back seats or the back seat is too small to accommodate a rear-facing child restraint may omit the statement "Never put a rear-facing child seat in the front." (S4.5.1(b)(3)(v))



Figure 11. Sun Visor Label Visible when Visor is in Down Position.

- ☒ Driver Side, Yes – Pass  
☐ Driver Side, No – Fail  
☒ Passenger Side, Yes – Pass  
☐ Passenger Side, No – Fail
- ☒ 3.3.3 Is the label heading area yellow with the word "WARNING" and the alert symbol in black? (S4.5.1(b)(3)(i))
- ☒ Driver Side, Yes – Pass  
☐ Driver Side, No – Fail  
☒ Passenger Side, Yes – Pass  
☐ Passenger Side, No – Fail
- ☒ 3.3.4 Is the message area white with black text? (S4.5.1(b)(3)(ii))
- ☒ Driver Side, Yes – Pass  
☐ Driver Side, No – Fail  
☒ Passenger Side, Yes – Pass  
☐ Passenger Side, No – Fail
- ☒ 3.3.5 Is the message area at least 30 cm<sup>2</sup>? (S4.5.1(b)(3)(ii))
- Driver Side: Length 12.3 cm , Width 4.3 cm  
 Passenger Side: Length 12.3 cm, Width 4.3 cm  
 Driver Actual message area 52.89 cm<sup>2</sup>  
 Passenger Actual message area 52.89 cm<sup>2</sup>
- ☒ Driver Side, Yes – Pass  
☐ Driver Side, No – Fail  
☒ Passenger Side, Yes – Pass  
☐ Passenger Side, No – Fail

<input checked="" type="checkbox"/>	3.3.6	Is the pictogram black on a white background? (S4.5.1(b)(3)(iii))
	<input checked="" type="checkbox"/>	Driver Side, Yes – Pass
	<input type="checkbox"/>	Driver Side, No – Fail
	<input checked="" type="checkbox"/>	Passenger Side, Yes – Pass
	<input type="checkbox"/>	Passenger Side, No – Fail
<input checked="" type="checkbox"/>	3.3.7	Is the pictogram at least 30 mm (1.2 inches) in length? (S4.5.1(b)(3)(iii))
		Driver Side: Length <u>40 mm</u>
		Passenger Side: Length <u>40 mm</u>
	<input checked="" type="checkbox"/>	Driver Side, Yes – Pass
	<input type="checkbox"/>	Driver Side, No – Fail
	<input checked="" type="checkbox"/>	Passenger Side, Yes – Pass
	<input type="checkbox"/>	Passenger Side, No – Fail
<input checked="" type="checkbox"/>	3.4	Is the same side of the sun visor that contains the air bag warning label free of other information with the exception of the air bag maintenance label and/or the rollover-warning label? (S4.5.1(b)(5)(i))
	<input checked="" type="checkbox"/>	Driver Side, Yes – Pass
	<input type="checkbox"/>	Driver Side, No – Fail
	<input checked="" type="checkbox"/>	Passenger Side, Yes – Pass
	<input type="checkbox"/>	Passenger Side, No – Fail
<input checked="" type="checkbox"/>	3.5	Is the sun visor free of other information about air bags or the need to wear seat belts with the exception of the air bag alert label and/or the rollover-warning label? (S4.5.1(b)(5)(ii))
	<input checked="" type="checkbox"/>	Driver Side, Yes – Pass
	<input type="checkbox"/>	Driver Side, No – Fail
	<input checked="" type="checkbox"/>	Passenger Side, Yes – Pass
	<input type="checkbox"/>	Passenger Side, No – Fail
<input checked="" type="checkbox"/>	3.6	Does the driver side visor contain a rollover-warning label on the same side of the visor as the air bag warning label?
		___ Yes, go to 3.6.1
		<u><input checked="" type="checkbox"/></u> No, go to 4 (skipping 3.6.1 through 3.6.3)
<input type="checkbox"/>	3.6.1	Are both the rollover-warning label and the air bag warning label surrounded by a continuous solid-lined border?
		___ Yes, go to 3.6.2 and skip 3.6.3
		___ No, go to 3.6.3 and skip 3.6.2
<input type="checkbox"/>	3.6.2	Is the shortest distance from the border of the rollover label to the border of the air bag warning label at least 1 cm? (575.105 (d)(1)(iv)(B))
		_____ actual distance

- ☐ 3.6.3 Is the shortest distance from any of the lettering or graphics on the rollover-warning label to any of the lettering or graphics of the air bag warning label at least 3 cm? (575.105 (d)(1)(iv)(A))
- \_\_\_\_\_ actual distance  
☐ Yes-Pass ☐ No-FAIL
- ☒ 4. Air Bag Alert Label (S4.5.1(c) (A "Rollover Warning Label" or "Rollover Alert Label" may be on the same side of the driver's sun visor as the "Air Bag Alert Label." 575.105(d))
- ☒ 4.1 Is the sun visor warning label visible when the sun visor is in the stowed position?
- ☐ If yes for driver and passenger, go to 5.
- ☐ Driver Side, Yes
- ☒ Driver Side, No
- ☐ Passenger Side, Yes
- ☒ Passenger Side, No
- ☒ 4.2 Is the air bag alert label permanently affixed (including permanent marking on the visor material or molding into the visor material) to the sun visor at each front outboard seating position such that it cannot be removed without destroying or defacing the label or the sun visor? (S4.5.1(c))
- ☐ Driver Side, Yes – Pass
- ☒ Driver Side, No – Fail
- ☐ Passenger Side, Yes – Pass
- ☒ Passenger Side, No – Fail
- ☒ 4.3 Is the air bag alert label visible when the visor is in the stowed position? (S4.5.1(c))
- ☒ Driver Side, Yes – Pass
- ☐ Driver Side, No – Fail
- ☒ Passenger Side, Yes – Pass
- ☐ Passenger Side, No – Fail



- ☒ 4.4 Does the label conform in content to the label shown in Figure 6C? (S4.5.1(c))

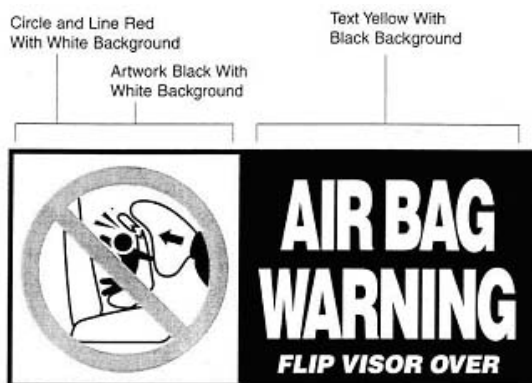


Figure 6c. Sun Visor Label Visible When Visor is in Up Position.

- ☒ Driver Side, Yes – Pass  
☐ Driver Side, No – Fail  
☒ Passenger Side, Yes – Pass  
☐ Passenger Side, No – Fail
- ☒ 4.5 Is the message area black with yellow text? (S4.5.1(c)(1))
- ☒ Driver Side, Yes – Pass  
☐ Driver Side, No – Fail  
☒ Passenger Side, Yes – Pass  
☐ Passenger Side, No – Fail
- ☒ 4.6 Is the message area at least 20 cm<sup>2</sup>? (S4.5.1(c)(1))
- Driver Side: Length 9.3 cm, Width 2.8 cm  
 Passenger Side: Length 9.4 cm, Width 2.8 cm  
 Actual message area 26.04 cm<sup>2</sup>
- ☒ Driver Side, Yes – Pass  
☐ Driver Side, No – Fail  
☒ Passenger Side, Yes – Pass  
☐ Passenger Side, No – Fail
- ☒ 4.7 Is the pictogram black with a red circle and slash on a white background? (S4.5.1(c)(2))
- ☒ Driver Side, Yes – Pass  
☐ Driver Side, No – Fail  
☒ Passenger Side, Yes – Pass  
☐ Passenger Side, No – Fail

- ☒ 4.8 Is the pictogram at least 20 mm in diameter? (S4.5.1(c)(2))  
 Driver Side Diameter \_\_\_\_\_ mm  
 Passenger Side Diameter \_\_\_\_\_ mm
- ☒ Driver Side, Yes – Pass  
☐ Driver Side, No – Fail  
☒ Passenger Side, Yes – Pass  
☐ Passenger Side, No – Fail
- ☒ 5. Label on the Dashboard
- ☒ 5.1 Is the vehicle certified to meet the requirements of S19, S21, and S23? (Obtain answer from COTR) (S4.5.1(3)(2))
- ☒ Yes, go to 5.1.1 and **skip 5.2**  
☐ No, go to 5.2, skipping 5.1.1 through 5.1.6
- ☒ 5.1.1 Does the vehicle have a label on the dash or steering wheel hub? (S4.5.1(e)(2))
- ☒ Yes – Pass  
☐ No - Fail
- ☒ 5.1.2 Is the label clearly visible from all front seating positions? (S4.5.1(e)(2))
- ☒ Yes – Pass  
☐ No - Fail
- ☒ 5.1.3 Does the label conform in content to the label shown in Figure 9? (S4.5.1(e)(2))  
 Vehicles without back seats may omit the statement: "The back seat is the safest place for children." (S4.5.1(e)(2)(iii))



Figure 9. Removable Label on Dash.

- ☒ Yes – Pass  
☐ No - Fail
- ☒ 5.1.4 Is the heading area yellow with black text? (S4.5.1(e)(2)(i))
- ☒ Yes – Pass  
☐ No - Fail
- ☒ 5.1.5 Is the message white with black text? (S4.5.1(e)(2)(ii))
- ☒ Yes – Pass  
☐ No - Fail

- ☒ 5.1.6 Is the message area at least 30 cm<sup>2</sup>? (S4.5.1(e)(2)(ii))  
Length 1.06 cm , Width 3.7 cm  
Actual message area 39.22 cm<sup>2</sup>
- ☒ Yes – Pass  
☐ No - Fail
- ☐ 5.2 Does the vehicle have a label on the dash or steering wheel hub? (S4.5.1(e)(1))
- ☐ Yes – Pass  
☐ No - Fail
- ☐ 5.2.1 Is the label clearly visible from all front seating positions? (S4.5.1(e)(1))
- ☐ Yes – Pass  
☐ No - Fail
- ☐ 5.2.2 Does the label conform in content to the label shown in Figure 7? (S4.5.1(e)(1)(iii))  
Vehicles without back seats may omit the statement: "The back seat is the safest place for children." (S4.5.1(e)(2)(iii))

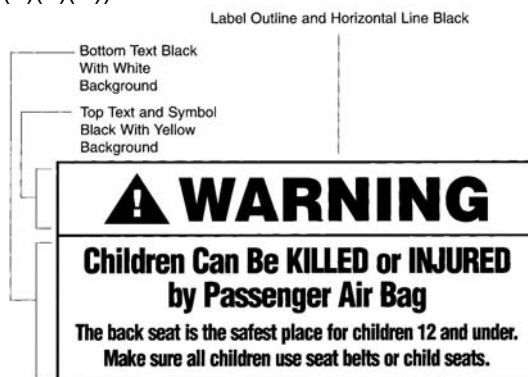


Figure 7. Removable Label on Dash.

- ☐ Yes – Pass  
☐ No - Fail
- ☐ 5.2.3 Is the heading area yellow with the word "WARNING" and the alert symbol in black? (S4.5.1(e)(1)(i))
- ☐ Yes – Pass  
☐ No - Fail
- ☐ 5.2.4 Is the message white with black text? (S4.5.1(e)(1)(ii))
- ☐ Yes – Pass  
☐ No - Fail



5.2.5

Is the message area at least 30 cm<sup>2</sup>? (S4.5.1(e)(1)(ii))

Length \_\_\_\_\_, Width \_\_\_\_\_

Actual message area \_\_\_\_\_ cm<sup>2</sup>

<input type="checkbox"/>
<input type="checkbox"/>

Yes – Pass

No - Fail

I certify that I have read and performed each instruction.

Signature:

Wayne Zahler

Date:

9/30/04

## DATA SHEET 6

### FMVSS 208 READINESS INDICATOR (S4.5.2)

Test Vehicle: 2005 Mercedes C230  
Test Program: FMVSS 208 Compliance  
Test Technician: Wayne Dahlke

NHTSA No.: C50500  
Test Date: 9/30/04

An occupant restraint system that deploys in the event of a crash shall have a monitoring system with a readiness indicator. A totally mechanical system is exempt from this requirement. (11/8/94 legal interpretation to Lawrence F. Hennegerger on behalf of Breed)

- ☒ 1. Is the system totally mechanical? If Yes, this data sheet is complete.  
☐ Yes  
☒ No
- ☒ 2. Describe the location of the readiness indicator: Right side of instrument cluster
- ☒ 3. Is the readiness indicator clearly visible to the driver?  
☒ Yes – Pass  
☐ No - Fail
- ☒ 4. Is a list of the elements in the occupant restraint system, being monitored by the readiness indicator, provided on a label or in the owner's manual?  
☒ Yes – Pass  
☐ No - Fail
- ☒ 5. Does the vehicle have an on-off switch for the passenger air bag?  
☐ If Yes, go to 6  
☒ If No, this form is complete.
- ☐ 6. Is the air bag readiness indicator off when the passenger air bag switch is in the off position?  
☐ Yes – Pass  
☐ No - Fail

REMARKS:

I certify that I have read and performed each instruction.

Signature: Wayne Dahlke

Date: 9/30/04

## DATA SHEET 7

### PASSENGER AIR BAG MANUAL CUT-OFF DEVICE (S4.5.4)

Test Vehicle: 2005 Mercedes C230  
 Test Program: FMVSS 208 Compliance  
 Test Technician: Wayne Dahlke

NHTSA No.: C50500  
 Test Date: 9/30/04

- |                                     |     |  |
|-------------------------------------|-----|--|
| <input checked="" type="checkbox"/> | 1.  | Is the vehicle equipped with an on-off switch that deactivates the air bag installed at the right front outboard seating position?   |
|                                     |     | <input type="checkbox"/> Yes, go to 2  |
|                                     |     | <input checked="" type="checkbox"/> No, this sheet is complete   |
| <input type="checkbox"/>            | 2.  | Does the vehicle have any forward-facing rear designated seating positions? (S4.5.4(a))  |
|                                     |     | <input type="checkbox"/> Yes, go to 3  |
|                                     |     | <input type="checkbox"/> No, go to 4   |
| <input type="checkbox"/>            | 3.  | Verification of the lack of room for a child restraint in the rear seat behind the driver's seat. (S4.5.4(b))  |
| <input type="checkbox"/>            | 3.1 | Position the seat's adjustable lumbar supports to that the lumbar support is in its lowest, retracted or deflated adjustment position (S8.1.3)   |
|                                     |     | <input type="checkbox"/> N/A, no lumbar adjustment   |
| <input type="checkbox"/>            | 3.2 | Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. (S16.2.10.02)   |
|                                     |     | <input type="checkbox"/> N/A, no additional support adjustment   |
| <input type="checkbox"/>            | 3.3 | If the seat cushion adjusts fore and aft, independent of the seat back, set this adjustment to the full rearward position. (S16.2.10.3.1)  |
|                                     |     | <input type="checkbox"/> N/A, no independent fore-aft seat cushion adjustment  |
| <input type="checkbox"/>            | 3.4 | If the seat cushion height adjusts independent of the seat back, set this adjustment to the full down position (S16.2.10.3.1)  |
|                                     |     | <input type="checkbox"/> N/A, no independent seat cushion height adjustment  |
| <input type="checkbox"/>            | 3.5 | Put the seat in its full rearward position. (S16.2.10.3.1)   |
|                                     |     | <input type="checkbox"/> N/A, the seat does not have a fore-aft adjustment   |
| <input type="checkbox"/>            | 3.6 | If the seat height is adjustable, put it in the full down position. (S16.2.10.3.1)   |
|                                     |     | <input type="checkbox"/> N/A, no seat height adjustment  |
| <input type="checkbox"/>            | 3.7 | Draw a horizontal reference line on the side of the seat cushion.  |
| <input type="checkbox"/>            | 3.8 | Using only the controls that change the seat in the fore-aft direction, mark the fore-aft seat positions. Mark the side of the seat and a reference position directly below on a part of the vehicle that does not adjust. For manual seats, move the seat forward one detent at a time and mark each detent as was done for the full rearward position. For power seats, mark only the full rearward, middle, and full forward positions. Label three of the positions with the following: F for full forward, M for mid-position (if there is no mid position, label the closest adjustment position to the rear of the mid-point), and R for full rearward. |
|                                     |     | <input type="checkbox"/> N/A – the seat does not have a fore-aft adjustment.   |
| <input type="checkbox"/>            | 3.9 | Using only the controls that change the seat in the fore-aft direction, place the seat in the full rearward position and then place the seat in the middle fore-aft position. (S8.1.2)   |
|                                     |     | <input type="checkbox"/> N/A – the seat does not have fore-aft adjustment.   |
|                                     |     | <input type="checkbox"/> Mid position  |

<input type="checkbox"/>		If there is no mid position, put the seat in the closest adjustment position to the rear of the midpoint. Describe the location of the seat:
<input type="checkbox"/>	3.10	If seat adjustments, other than fore-aft, are present and the horizontal reference line is no longer horizontal, use those adjustments to maintain the reference line as closely as possible to the horizontal.
<input type="checkbox"/>		<input type="checkbox"/> N/A – No adjustments
<input type="checkbox"/>		Angle of reference line as tested:
<input type="checkbox"/>	3.11	The seat back angle, if adjustable, is set at the manufacturer's nominal design riding position for a 50th percentile adult male in the manner specified by the manufacturer. (S4.5.4.1 (b) and S8.1.3)
<input type="checkbox"/>		<input type="checkbox"/> N/A – No seat back angle adjustment
<input type="checkbox"/>		Manufacturers design seat back angle:
<input type="checkbox"/>		Tested seat back angle:
<input type="checkbox"/>	3.12	Is the driver seat a bucket seat?
<input type="checkbox"/>		<input type="checkbox"/> Yes, go to 3.12.1 and skip 3.12.2
<input type="checkbox"/>		<input type="checkbox"/> No, go to 3.12.2 and skip 3.12.1
<input type="checkbox"/>	3.12.1	Bucket Seats:
<input type="checkbox"/>	3.12.1.1	Locate and mark a vertical Plane B through the longitudinal centerline of the seat driver's seat cushion. (S22.2.1.3) The longitudinal centerline of a bucket seat cushion is determined at the widest part of the seat cushion. Measure perpendicular to the longitudinal centerline of the vehicle.
<input type="checkbox"/>		Record the width of the seat:
<input type="checkbox"/>		Record the distance from the edge of the seat to Plane B:
<input type="checkbox"/>	3.12.1.2	Locate the longitudinal horizontal line in plane B that is tangent to the highest point of the rear seat cushion behind the driver's seat. Measure along this line from the front of the seat back of the rear seat to the rear of the seat back of the driver's seat.
<input type="checkbox"/>		Distance (mm):
<input type="checkbox"/>		<input type="checkbox"/> Less than 720 mm – Pass
<input type="checkbox"/>		<input type="checkbox"/> More then 720 mm – Fail
<input type="checkbox"/>		Go to 4
<input type="checkbox"/>	3.12.2	Bench seats (including split bench seats):
<input type="checkbox"/>	3.12.2.1	Locate and mark a vertical Plane B through the center of the steering wheel parallel to the vehicle longitudinal centerline.
<input type="checkbox"/>	3.12.2.2	Locate the longitudinal horizontal line in plane B that is tangent to the highest point of the rear seat cushion. Measure along this line from the front of the seat back of the rear seat to the rear of the seat back of the front seat.
<input type="checkbox"/>		Distance (mm):
<input type="checkbox"/>		<input type="checkbox"/> Less than 720 mm – Pass
<input type="checkbox"/>		<input type="checkbox"/> More then 720 mm – Fail
<input type="checkbox"/>		Go to 4

<input type="checkbox"/>	4.	Does the device turn the air bag on and off using the vehicle's ignition key? (S4.5.4.2)
	<input type="checkbox"/>	Yes – Pass
	<input type="checkbox"/>	No – Fail
<input type="checkbox"/>	5.	Is the on-off device separate from the ignition switch? (S4.5.4.2)
	<input type="checkbox"/>	Yes – Pass
	<input type="checkbox"/>	No – Fail
<input type="checkbox"/>	6.	Is there a telltale light that comes on when the passenger air bag is turned off? (S4.5.4.2)
	<input type="checkbox"/>	Yes – Pass
	<input type="checkbox"/>	No – Fail
<input type="checkbox"/>	7.	Telltale light (S4.5.4.3)
<input type="checkbox"/>	7.1	Is the light yellow? S4.5.4.3(a))
	<input type="checkbox"/>	Yes – Pass
	<input type="checkbox"/>	No – Fail
<input type="checkbox"/>	7.2	Are the words "PASSENGER AIR BAG OFF" (S4.5.4.3(b))
<input type="checkbox"/>	7.2.1	on the telltale?
	<input type="checkbox"/>	Yes – Pass, go to 7.3
	<input type="checkbox"/>	No – go to 7.2.2
<input type="checkbox"/>	7.2.2	within 25 mm of the telltale?
<input type="checkbox"/>		Measurement from the edge of the telltale light (mm):
	<input type="checkbox"/>	Yes – Pass
	<input type="checkbox"/>	No – Fail
<input type="checkbox"/>	7.3	Does the telltale remain illuminated while the air bag is turned off? (S4.5.4.3c)) (Leave the air bag off for 5 minutes.)
	<input type="checkbox"/>	Yes – Pass
	<input type="checkbox"/>	No – Fail
<input type="checkbox"/>	7.4	Is the telltale illuminated while the air bag is turned on? (S4.5.4.3(d))
	<input type="checkbox"/>	Yes – Fail
	<input type="checkbox"/>	No – Pass
<input type="checkbox"/>	7.5	Is the telltale combined with the air bag readiness indicator? (S4.5.4.3(e))
	<input type="checkbox"/>	Yes – Fail
	<input type="checkbox"/>	No – Pass
<input type="checkbox"/>	8.	Owner's Manual
<input type="checkbox"/>	8.1	Does the owner's manual contain complete instructions on the operation of the on-off switch? (S4.5.4.4(a))
	<input type="checkbox"/>	Yes – Pass
	<input type="checkbox"/>	No – Fail



<input type="checkbox"/>	8.2	<p>Does the owner's manual contain a statement that the on-off switch should only be used when a member of one of the following risk groups is occupying the right front passenger seating position? (S4.5.4.4(b))</p> <p>Infants:      there is no back seat                         the rear seat is too small to accommodate a child restraint                         there is a medical condition that must be monitored constantly</p> <p>Children      there is no back seat          aged        space is not always available in the rear seat          1 to 12:    there is a medical condition that must be monitored constantly</p> <p>Medical      medical risk causes special risk for passenger          condition:   greater risk for harm than with the air bag on</p> <p><input type="checkbox"/> Yes – Pass  <input type="checkbox"/> No – Fail</p>
<input type="checkbox"/>	8.3	<p>Does the owner's manual contain a warning about the safety consequences of using the on-off switch at other times?</p> <p><input type="checkbox"/> Yes – Pass  <input type="checkbox"/> No – Fail</p>

REMARKS:

I certify that I have read and performed each instruction.

Signature: Wayne Zuhl

Date: 9/30/04

## DATA SHEET 8

### LAP BELT LOCKABILITY

**Passenger cars, trucks, buses, and multipurpose passenger  
Vehicles with a GVWR of 10,000 pounds or less. (S7.1.1.5)**

Test Vehicle: 2005 Mercedes C230  
Test Program: FMVSS 208 Compliance  
Test Technician: Wayne Dahlke

NHTSA No.: C50500  
Test Date: 9/30/04

Complete one of these forms for **each** designated seating position that can be adjusted to forward-facing or that is a forward-facing seat, other than the driver's seat (S7.1.1.5(a), **and** that has seat belt retractors that are not solely automatic locking retractors. (S7.1.1.5(c))

DESIGNATED SEATING POSITION:	<b>Front Passenger</b>
------------------------------	------------------------

<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto;"></div>		N/A – no retractor is at this position	
<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto;"></div>		N/A – the retractor is an automatic locking retractor ONLY	
<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto; text-align: center; font-weight: bold;">X</div>	1.	Record test fore-aft seat position: Full Aft (S7.1.1.5(c)(1)) (Any position is acceptable)	
<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto; text-align: center; font-weight: bold;">X</div>	2.	Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does <b>NOT</b> have to be attached by the vehicle user to the seat belt webbing, retractor, or any other part of the vehicle. (S7.1.1.5 (a))	
		<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto; text-align: center; font-weight: bold;">X</div> Yes – Pass	
		<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto;"></div> No – Fail	
<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto; text-align: center; font-weight: bold;">X</div>	3.	Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does <b>NOT</b> require inverting, twisting or deforming of the belt webbing. (S7.1.1.5 (a))	
		<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto; text-align: center; font-weight: bold;">X</div> Yes – Pass	
		<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto;"></div> No – Fail	
<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto; text-align: center; font-weight: bold;">X</div>	4.	Buckle the seat belt. (S7.1.1.5(c)(1))	
<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto; text-align: center; font-weight: bold;">X</div>	5.	Locate a reference point A on the seat belt buckle. (S7.1.1.5(c)(2))	
<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto; text-align: center; font-weight: bold;">X</div>	6.	Locate a reference point B on the attachment hardware or retractor assembly at the other end of the lap belt or lap belt portion of the seat belt assembly. (S7.1.1.5(c)(2))	
<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto; text-align: center; font-weight: bold;">X</div>	7.	Does the vehicle user need to take some action to activate the locking feature on the lap belt portion of the seat belt in any forward-facing seat or seat that can be adjusted to forward-facing?	
		<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto; text-align: center; font-weight: bold;">X</div> Yes, go to 7.1	
		<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto;"></div> No, go to 8	
<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto; text-align: center; font-weight: bold;">X</div>	7.1	Does the vehicle owner's manual include a description in words and/or diagrams describing how to activate the locking feature so that the seat belt assembly can tightly secure a child restraint system and how to deactivate the locking feature to remove the child restraint system. (S7.1.1.5(b))	
		<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto; text-align: center; font-weight: bold;">X</div> Yes – Pass	
		<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto;"></div> No – Fail	
<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto; text-align: center; font-weight: bold;">X</div>	8.	Adjust the lap belt or lap belt portion of the seat belt assembly according to any procedures recommended in the vehicle owner's manual to activate any locking feature so that the webbing between points A and B is at the maximum length allowed by the belt system. (S7.1.1.5(c)(2) & S7.1.1.5(c)(1))	

- ☒ 9. Measure and record the distance between points A and B along the longitudinal centerline of the webbing for the lap belt or lap belt portion of the seat belt assembly. (S7.1.1.5(c)(2))
- ☒ Measured distance between A and B (inches): 66.25
- ☒ 10. Readjust the belt system so that the webbing between points A and B is at any length that is 5 inches or more shorter than the maximum length of the webbing. (S7.1.1.5(c)(3))
- ☒ 11. To the lap belt or lap belt portion of the seat belt assembly, apply a preload of 10 pounds using the webbing tension pull device in Figure 5. Apply the load in a vertical plane parallel to the longitudinal axis of the vehicle and passing through the seating reference point of the designated seating position. Apply the preload in a horizontal direction toward the front of the vehicle with a force application angle of not less than 5 degrees nor more than 15 degrees above the horizontal. (S7.1.1.5(c)(4))
- ☒ Measured force application angle (Spec. 5-15 degrees): 9.1
- ☒ 12. Measure the length between points A and B along the longitudinal centerline of the webbing while the preload is being applied. (S7.1.1.5(c)(4))
- ☒ Measured distance between A and B (inches): 34.5
- ☒ 13. Increase the load to 50 pounds at a rate of no more than 50 pounds per second. Attain the load in not more than 5 seconds. (If webbing sensitive emergency locking retractors are installed as part of the lap belt or lap belt portion of the seat belt assembly, apply the load at a rate less than the threshold value for lock-up specified by the manufacturer.) Maintain the load for at least 5 seconds. Measure and record the distance between points A and B along the longitudinal centerline of the webbing. (S7.1.1.5(c)(5))
- ☒ Record onset rate (lb/sec) (spec. 10 to 50 lb/sec) (S7.1.1.5(c)(5)): 36 lb/sec
- ☒ Measured distance between A and B (inches) (S7.1.1.5(c)(6)): 35.25 inches
- ☒ 14. Subtract the measurement in 12 from the measurement in 13. Is the difference 2 inches or less? (S7.1.1.5(c)(7))
- ☒  $13 - 12 = 34.5 - 35.25 = .75$  inches
- ☒ Yes – Pass
- ☐ No – Fail
- ☒ 15. Subtract the measurement in 13 from the measurement in 9. Is the difference 3 inches or more? (S7.1.1.5(c)(8))
- ☒  $9 - 13 = 66.25 - 35.25 = 31$  inches
- ☒ Yes – Pass
- ☐ No – Fail

REMARKS:

I certify that I have read and performed each instruction.

Signature: Wayne Gahl

Date: 9/30/04

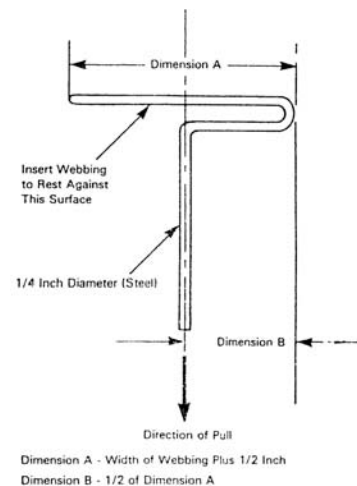


Figure 5. - Webbing Tension Pull Device

## DATA SHEET 8

### LAP BELT LOCKABILITY

**Passenger cars, trucks, buses, and multipurpose passenger  
Vehicles with a GVWR of 10,000 pounds or less. (S7.1.1.5)**

Test Vehicle: 2005 Mercedes C230  
Test Program: FMVSS 208 Compliance  
Test Technician: Nick Kosinski

NHTSA No.: C50500  
Test Date: 9/30/04

Complete one of these forms for **each** designated seating position that can be adjusted to forward-facing or that is a forward-facing seat, other than the driver's seat (S7.1.1.5(a), **and** that has seat belt retractors that are not solely automatic locking retractors. (S7.1.1.5(c))

DESIGNATED SEATING POSITION:	Left Rear Passenger
------------------------------	---------------------

<input type="checkbox"/>		N/A – no retractor is at this position
<input type="checkbox"/>		N/A – the retractor is an automatic locking retractor ONLY
<input checked="" type="checkbox"/>	1.	Record test fore-aft seat position: Not Adjustable (S7.1.1.5(c)(1)) (Any position is acceptable)
<input checked="" type="checkbox"/>	2.	Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does <b>NOT</b> have to be attached by the vehicle user to the seat belt webbing, retractor, or any other part of the vehicle. (S7.1.1.5 (a))
		<input checked="" type="checkbox"/> Yes – Pass
		<input type="checkbox"/> No – Fail
<input checked="" type="checkbox"/>	3.	Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does <b>NOT</b> require inverting, twisting or deforming of the belt webbing. (S7.1.1.5 (a))
		<input checked="" type="checkbox"/> Yes – Pass
		<input type="checkbox"/> No – Fail
<input checked="" type="checkbox"/>	4.	Buckle the seat belt. (S7.1.1.5(c)(1))
<input checked="" type="checkbox"/>	5.	Locate a reference point A on the seat belt buckle. (S7.1.1.5(c)(2))
<input checked="" type="checkbox"/>	6.	Locate a reference point B on the attachment hardware or retractor assembly at the other end of the lap belt or lap belt portion of the seat belt assembly. (S7.1.1.5(c)(2))
<input checked="" type="checkbox"/>	7.	Does the vehicle user need to take some action to activate the locking feature on the lap belt portion of the seat belt in any forward-facing seat or seat that can be adjusted to forward-facing?
		<input checked="" type="checkbox"/> Yes, go to 7.1
		<input type="checkbox"/> No, go to 8
<input checked="" type="checkbox"/>	7.1	Does the vehicle owner's manual include a description in words and/or diagrams describing how to activate the locking feature so that the seat belt assembly can tightly secure a child restraint system and how to deactivate the locking feature to remove the child restraint system. (S7.1.1.5(b))
		<input checked="" type="checkbox"/> Yes – Pass
		<input type="checkbox"/> No – Fail
<input checked="" type="checkbox"/>	8.	Adjust the lap belt or lap belt portion of the seat belt assembly according to any procedures recommended in the vehicle owner's manual to activate any locking feature so that the webbing between points A and B is at the maximum length allowed by the belt system. (S7.1.1.5(c)(2) & S7.1.1.5(c)(1))

- ☒ 9. Measure and record the distance between points A and B along the longitudinal centerline of the webbing for the lap belt or lap belt portion of the seat belt assembly. (S7.1.1.5(c)(2))  
Measured distance between A and B (inches): 61.125
- ☒ 10. Readjust the belt system so that the webbing between points A and B is at any length that is 5 inches or more shorter than the maximum length of the webbing. (S7.1.1.5(c)(3))
- ☒ 11. To the lap belt or lap belt portion of the seat belt assembly, apply a preload of 10 pounds using the webbing tension pull device in Figure 5. Apply the load in a vertical plane parallel to the longitudinal axis of the vehicle and passing through the seating reference point of the designated seating position. Apply the preload in a horizontal direction toward the front of the vehicle with a force application angle of not less than 5 degrees nor more than 15 degrees above the horizontal. (S7.1.1.5(c)(4))  
Measured force application angle (Spec. 5-15 degrees): 9.3
- ☒ 12. Measure the length between points A and B along the longitudinal centerline of the webbing while the preload is being applied. (S7.1.1.5(c)(4))  
Measured distance between A and B (inches): 23.75
- ☒ 13. Increase the load to 50 pounds at a rate of no more than 50 pounds per second. Attain the load in not more than 5 seconds. (If webbing sensitive emergency locking retractors are installed as part of the lap belt or lap belt portion of the seat belt assembly, apply the load at a rate less than the threshold value for lock-up specified by the manufacturer.) Maintain the load for at least 5 seconds. Measure and record the distance between points A and B along the longitudinal centerline of the webbing. (S7.1.1.5(c)(5))  
Record onset rate (lb/sec) (spec. 10 to 50 lb/sec) (S7.1.1.5(c)(5)): 35  
Measured distance between A and B (inches) (S7.1.1.5(c)(6)): 24.5
- ☒ 14. Subtract the measurement in 12 from the measurement in 13. Is the difference 2 inches or less? (S7.1.1.5(c)(7))  
 $13 - 12 = 24.5 - 23.75 = .75$  inches  
☒ Yes – Pass  
☐ No – Fail
- ☒ 15. Subtract the measurement in 13 from the measurement in 9. Is the difference 3 inches or more? (S7.1.1.5(c)(8))  
 $9 - 13 = 61.125 - 24.5 = 36.625$  inches  
☒ Yes – Pass  
☐ No – Fail

REMARKS:

I certify that I have read and performed each instruction.

Signature: *Thick Kosinski*

Date: 9/30/04

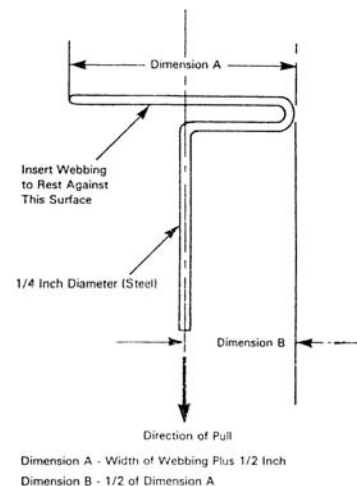


Figure 5. - Webbing Tension Pull Device

## DATA SHEET 8

### LAP BELT LOCKABILITY

**Passenger cars, trucks, buses, and multipurpose passenger  
Vehicles with a GVWR of 10,000 pounds or less. (S7.1.1.5)**

Test Vehicle: 2005 Mercedes C230  
Test Program: FMVSS 208 Compliance  
Test Technician: Nick Kosinski

NHTSA No.: C50500  
Test Date: 9/30/04

Complete one of these forms for **each** designated seating position that can be adjusted to forward-facing or that is a forward-facing seat, other than the driver's seat (S7.1.1.5(a), **and** that has seat belt retractors that are not solely automatic locking retractors. (S7.1.1.5(c))

DESIGNATED SEATING POSITION:	Center Rear Passenger
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<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto;"></div>		N/A – no retractor is at this position	
<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto;"></div>		N/A – the retractor is an automatic locking retractor ONLY	
<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto; text-align: center; font-weight: bold;">X</div>	1.	Record test fore-aft seat position: Not Adjustable (S7.1.1.5(c)(1)) (Any position is acceptable)	
<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto; text-align: center; font-weight: bold;">X</div>	2.	Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does <b>NOT</b> have to be attached by the vehicle user to the seat belt webbing, retractor, or any other part of the vehicle. (S7.1.1.5 (a))	
		<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto; text-align: center; font-weight: bold;">X</div> Yes – Pass	
		<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto;"></div> No – Fail	
<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto; text-align: center; font-weight: bold;">X</div>	3.	Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does <b>NOT</b> require inverting, twisting or deforming of the belt webbing. (S7.1.1.5 (a))	
		<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto; text-align: center; font-weight: bold;">X</div> Yes – Pass	
		<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto;"></div> No – Fail	
<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto; text-align: center; font-weight: bold;">X</div>	4.	Buckle the seat belt. (S7.1.1.5(c)(1))	
<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto; text-align: center; font-weight: bold;">X</div>	5.	Locate a reference point A on the seat belt buckle. (S7.1.1.5(c)(2))	
<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto; text-align: center; font-weight: bold;">X</div>	6.	Locate a reference point B on the attachment hardware or retractor assembly at the other end of the lap belt or lap belt portion of the seat belt assembly. (S7.1.1.5(c)(2))	
<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto; text-align: center; font-weight: bold;">X</div>	7.	Does the vehicle user need to take some action to activate the locking feature on the lap belt portion of the seat belt in any forward-facing seat or seat that can be adjusted to forward-facing?	
		<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto; text-align: center; font-weight: bold;">X</div> Yes, go to 7.1	
		<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto;"></div> No, go to 8	
<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto; text-align: center; font-weight: bold;">X</div>	7.1	Does the vehicle owner's manual include a description in words and/or diagrams describing how to activate the locking feature so that the seat belt assembly can tightly secure a child restraint system and how to deactivate the locking feature to remove the child restraint system. (S7.1.1.5(b))	
		<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto; text-align: center; font-weight: bold;">X</div> Yes – Pass	
		<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto;"></div> No – Fail	
<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto; text-align: center; font-weight: bold;">X</div>	8.	Adjust the lap belt or lap belt portion of the seat belt assembly according to any procedures recommended in the vehicle owner's manual to activate any locking feature so that the webbing between points A and B is at the maximum length allowed by the belt system. (S7.1.1.5(c)(2) & S7.1.1.5(c)(1))	

- ☒ 9. Measure and record the distance between points A and B along the longitudinal centerline of the webbing for the lap belt or lap belt portion of the seat belt assembly. (S7.1.1.5(c)(2))  
Measured distance between A and B (inches): 67.75
- ☒ 10. Readjust the belt system so that the webbing between points A and B is at any length that is 5 inches or more shorter than the maximum length of the webbing. (S7.1.1.5(c)(3))
- ☒ 11. To the lap belt or lap belt portion of the seat belt assembly, apply a preload of 10 pounds using the webbing tension pull device in Figure 5. Apply the load in a vertical plane parallel to the longitudinal axis of the vehicle and passing through the seating reference point of the designated seating position. Apply the preload in a horizontal direction toward the front of the vehicle with a force application angle of not less than 5 degrees nor more than 15 degrees above the horizontal. (S7.1.1.5(c)(4))  
Measured force application angle (Spec. 5-15 degrees): 9.7
- ☒ 12. Measure the length between points A and B along the longitudinal centerline of the webbing while the preload is being applied. (S7.1.1.5(c)(4))  
Measured distance between A and B (inches): 28
- ☒ 13. Increase the load to 50 pounds at a rate of no more than 50 pounds per second. Attain the load in not more than 5 seconds. (If webbing sensitive emergency locking retractors are installed as part of the lap belt or lap belt portion of the seat belt assembly, apply the load at a rate less than the threshold value for lock-up specified by the manufacturer.) Maintain the load for at least 5 seconds. Measure and record the distance between points A and B along the longitudinal centerline of the webbing. (S7.1.1.5(c)(5))  
Record onset rate (lb/sec) (spec. 10 to 50 lb/sec) (S7.1.1.5(c)(5)): 35  
Measured distance between A and B (inches) (S7.1.1.5(c)(6)): 28.75
- ☒ 14. Subtract the measurement in 12 from the measurement in 13. Is the difference 2 inches or less? (S7.1.1.5(c)(7))  
 $13 - 12 = 28.75 - 28 = .75$  inches  
☒ Yes – Pass  
☐ No – Fail
- ☒ 15. Subtract the measurement in 13 from the measurement in 9. Is the difference 3 inches or more? (S7.1.1.5(c)(8))  
 $9 - 13 = 67.75 - 28.75 = 39$  inches  
☒ Yes – Pass  
☐ No – Fail

REMARKS:

I certify that I have read and performed each instruction.

Signature: *Thick Kosinski*

Date: 9/30/04

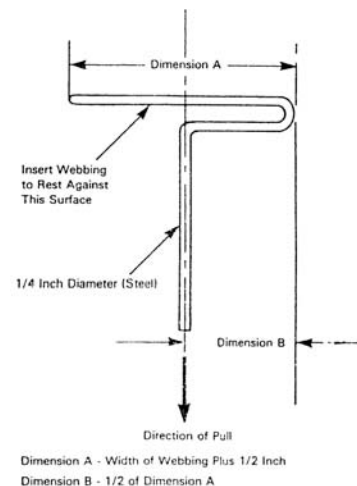


Figure 5. - Webbing Tension Pull Device

## DATA SHEET 8

### LAP BELT LOCKABILITY

**Passenger cars, trucks, buses, and multipurpose passenger  
Vehicles with a GVWR of 10,000 pounds or less. (S7.1.1.5)**

Test Vehicle: 2005 Mercedes C230  
Test Program: FMVSS 208 Compliance  
Test Technician: Wayne Dahlke

NHTSA No.: C50500  
Test Date: 9/30/04

Complete one of these forms for **each** designated seating position that can be adjusted to forward-facing or that is a forward-facing seat, other than the driver's seat (S7.1.1.5(a), **and** that has seat belt retractors that are not solely automatic locking retractors. (S7.1.1.5(c))

DESIGNATED SEATING POSITION:	Right Rear Passenger
------------------------------	----------------------

<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto;"></div>		N/A – no retractor is at this position	
<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto;"></div>		N/A – the retractor is an automatic locking retractor ONLY	
<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto; text-align: center; font-weight: bold;">X</div>	1.	Record test fore-aft seat position: Not Adjustable (S7.1.1.5(c)(1)) (Any position is acceptable)	
<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto; text-align: center; font-weight: bold;">X</div>	2.	Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does <b>NOT</b> have to be attached by the vehicle user to the seat belt webbing, retractor, or any other part of the vehicle. (S7.1.1.5 (a))	
		<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto; text-align: center; font-weight: bold;">X</div> Yes – Pass	
		<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto;"></div> No – Fail	
<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto; text-align: center; font-weight: bold;">X</div>	3.	Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does <b>NOT</b> require inverting, twisting or deforming of the belt webbing. (S7.1.1.5 (a))	
		<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto; text-align: center; font-weight: bold;">X</div> Yes – Pass	
		<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto;"></div> No – Fail	
<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto; text-align: center; font-weight: bold;">X</div>	4.	Buckle the seat belt. (S7.1.1.5(c)(1))	
<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto; text-align: center; font-weight: bold;">X</div>	5.	Locate a reference point A on the seat belt buckle. (S7.1.1.5(c)(2))	
<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto; text-align: center; font-weight: bold;">X</div>	6.	Locate a reference point B on the attachment hardware or retractor assembly at the other end of the lap belt or lap belt portion of the seat belt assembly. (S7.1.1.5(c)(2))	
<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto; text-align: center; font-weight: bold;">X</div>	7.	Does the vehicle user need to take some action to activate the locking feature on the lap belt portion of the seat belt in any forward-facing seat or seat that can be adjusted to forward-facing?	
		<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto; text-align: center; font-weight: bold;">X</div> Yes, go to 7.1	
		<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto;"></div> No, go to 8	
<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto; text-align: center; font-weight: bold;">X</div>	7.1	Does the vehicle owner's manual include a description in words and/or diagrams describing how to activate the locking feature so that the seat belt assembly can tightly secure a child restraint system and how to deactivate the locking feature to remove the child restraint system. (S7.1.1.5(b))	
		<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto; text-align: center; font-weight: bold;">X</div> Yes – Pass	
		<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto;"></div> No – Fail	
<div style="background-color: yellow; width: 20px; height: 20px; margin: 0 auto; text-align: center; font-weight: bold;">X</div>	8.	Adjust the lap belt or lap belt portion of the seat belt assembly according to any procedures recommended in the vehicle owner's manual to activate any locking feature so that the webbing between points A and B is at the maximum length allowed by the belt system. (S7.1.1.5(c)(2) & S7.1.1.5(c)(1))	



- ☒ 9. Measure and record the distance between points A and B along the longitudinal centerline of the webbing for the lap belt or lap belt portion of the seat belt assembly. (S7.1.1.5(c)(2))  
Measured distance between A and B (inches): 55.5
- ☒ 10. Readjust the belt system so that the webbing between points A and B is at any length that is 5 inches or more shorter than the maximum length of the webbing. (S7.1.1.5(c)(3))
- ☒ 11. To the lap belt or lap belt portion of the seat belt assembly, apply a preload of 10 pounds using the webbing tension pull device in Figure 5. Apply the load in a vertical plane parallel to the longitudinal axis of the vehicle and passing through the seating reference point of the designated seating position. Apply the preload in a horizontal direction toward the front of the vehicle with a force application angle of not less than 5 degrees nor more than 15 degrees above the horizontal. (S7.1.1.5(c)(4))  
Measured force application angle (Spec. 5-15 degrees): 9.2
- ☒ 12. Measure the length between points A and B along the longitudinal centerline of the webbing while the preload is being applied. (S7.1.1.5(c)(4))  
Measured distance between A and B (inches): 30.5
- ☒ 13. Increase the load to 50 pounds at a rate of no more than 50 pounds per second. Attain the load in not more than 5 seconds. (If webbing sensitive emergency locking retractors are installed as part of the lap belt or lap belt portion of the seat belt assembly, apply the load at a rate less than the threshold value for lock-up specified by the manufacturer.) Maintain the load for at least 5 seconds. Measure and record the distance between points A and B along the longitudinal centerline of the webbing. (S7.1.1.5(c)(5))  
Record onset rate (lb/sec) (spec. 10 to 50 lb/sec) (S7.1.1.5(c)(5)): 40  
Measured distance between A and B (inches) (S7.1.1.5(c)(6)): 30.75
- ☒ 14. Subtract the measurement in 12 from the measurement in 13. Is the difference 2 inches or less? (S7.1.1.5(c)(7))  
 $13 - 12 = 30.75 - 30.5 = .25$  inches
- ☒ Yes – Pass  
☐ No – Fail
- ☒ 15. Subtract the measurement in 13 from the measurement in 9. Is the difference 3 inches or more? (S7.1.1.5(c)(8))  
 $9 - 13 = 55.5 - 30.75 = 24.75$  inches
- ☒ Yes – Pass  
☐ No – Fail

REMARKS:

I certify that I have read and performed each instruction.

Signature: Wayne Gahl

Date: 9/30/04

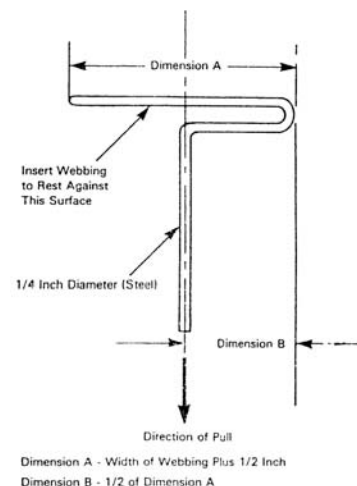


Figure 5. - Webbing Tension Pull Device

## DATA SHEET 9

### FMVSS 208 SEAT BELT WARNING SYSTEM CHECK (S7.3)

Test Vehicle: 2005 Mercedes C230  
 Test Program: FMVSS 208 Compliance  
 Test Technician: Wayne Dahlke

NHTSA No.: C50500  
 Test Date: 9/30/04

- |          |     |   |
|----------|-----|---|
| <b>X</b> | 1.  | The occupant is in the driver's seat.   |
| <b>X</b> | 2.  | The seat belt is in the stowed position.  |
| <b>X</b> | 3.  | The key is in the "on" or "start" position.   |
| <b>X</b> | 4.  | The time duration of the audible signal beginning with key "on" or "start" is                       |
| <b>X</b> |     | Seconds: 6.0  |
| <b>X</b> | 5.  | The occupant is in the driver's seat.   |
| <b>X</b> | 6.  | The seat belt is in the stowed position.  |
| <b>X</b> | 7.  | The key is in the "on" or "start" position.   |
| <b>X</b> | 8.  | The time duration of the warning light beginning with key "on" or "start" is                        |
| <b>X</b> |     | Seconds: 6.0  |
| <b>X</b> | 9.  | The occupant is in the driver's seat.   |
| <b>X</b> | 10. | The seat belt is in the latched position and with at least 4 inches of belt webbing extended.       |
| <b>X</b> | 11. | The key is in the "on" or "start" position.   |
| <b>X</b> | 12. | The time duration of the audible signal beginning with key "on" or "start" is                       |
| <b>X</b> |     | Seconds: 0.0  |
| <b>X</b> | 13. | The occupant is in the driver's seat.   |
| <b>X</b> | 14. | The seat belt is in the latched position and with at least 4 inches of belt webbing extended.       |
| <b>X</b> | 15. | The key is in the "on" or "start" position.   |
| <b>X</b> | 16. | The time duration of the warning light beginning with key "on" or "start" is                        |
| <b>X</b> |     | Seconds: 6.0  |
| <b>X</b> | 17. | Complete the following table with the data from 4, 8, 12, and 16 to determine which option is used. |

		Warning light	Warning light specification	Audible signal	Audible signal specification*
S7.3 (a)(1)	Belt latched & key on or start	Item 16: 6		Item 12: 0	0 seconds**
	Belt stowed & key on or start	Item 8: 6	60 seconds minimum	Item 4: 6	4 to 8 seconds
S7.3 (a)(2)	Belt latched & key on or start	Item 16: 6	4 to 8 seconds	Item 12: 0	0 seconds**
	Belt stowed & key on or start	Item 8: 6	4 to 8 seconds	Item 4: 6	4 to 8 seconds

\* 49 USCS @ 30124 does NOT allow an audible signal to operate for more than 8 seconds.

\*\* 0 seconds means the light or audible signal are NOT permitted to operate under these conditions.  
 See 7/12/00 interpretation to Patrick Raher of Hogan and Hartson

- |   |   |
|---|---|
| <div style="background-color: yellow; border: 1px solid black; display: inline-block; padding: 2px 5px;"><b>X</b></div> | 18. The seat belt warning system meets the requirements of (manufacturers may comply with either section)   |
|   | <div style="background-color: yellow; border: 1px solid black; display: inline-block; padding: 2px 5px;"></div> S7.3 (a)(1)   |
|   | <div style="background-color: yellow; border: 1px solid black; display: inline-block; padding: 2px 5px;"><b>X</b></div> S7.3 (a)(2)                                     |
|   | <div style="background-color: yellow; border: 1px solid black; display: inline-block; padding: 2px 5px;"></div> FAIL – does not meet the requirements of either option  |
| <div style="background-color: yellow; border: 1px solid black; display: inline-block; padding: 2px 5px;"><b>X</b></div> | 19. Note wording of visual warning: (S7.3(a)(1) and S7.3(a)(2))   |
|   | <div style="background-color: yellow; border: 1px solid black; display: inline-block; padding: 2px 5px;"></div> Fasten seat belts                                       |
|   | <div style="background-color: yellow; border: 1px solid black; display: inline-block; padding: 2px 5px;"></div> Fasten belts  |
|   | <div style="background-color: yellow; border: 1px solid black; display: inline-block; padding: 2px 5px;"><b>X</b></div> Symbol 101                                      |
|   | <div style="background-color: yellow; border: 1px solid black; display: inline-block; padding: 2px 5px;"></div> FAIL – does not used any of the above working or symbol |

REMARKS:

I certify that I have read and performed each instruction.

Signature: Wayne Zuhl

Date: 9/30/04

# **DATA SHEET 10** **BELT CONTACT FORCE (S7.4.3)**

Test Vehicle: 2005 Mercedes C230  
 Test Program: FMVSS 208 Compliance  
 Test Technician: Wayne Dahlke

NHTSA No.: C50500  
 Test Date: 9/30/04

Test all Type 2 seat belts other than those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

DESIGNATED SEATING POSITION:	Left Rear Passenger
------------------------------	---------------------

- |          |     |   |
|----------|-----|---|
| <b>X</b> | 1.  | Does the vehicle incorporate a webbing tension-relieving device?<br><div style="margin-left: 20px;"> <input type="checkbox"/> Yes, this form is complete<br/> <input checked="" type="checkbox"/> No, continue with this check sheet             </div>   |
| <b>X</b> | 2.  | Position the seat's adjustable lumbar supports so that the lumbar support is in its lowest, retracted or deflated adjustment position. (S8.1.3)<br><input checked="" type="checkbox"/> N/A, no lumbar adjustment  |
| <b>X</b> | 3.  | Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. (S16.2.10.2)<br><input checked="" type="checkbox"/> N/A, no additional support adjustment  |
| <b>X</b> | 4.  | Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. (S16.2.10.2)<br><input checked="" type="checkbox"/> N/A, no independent fore-aft seat cushion adjustment   |
| <b>X</b> | 5.  | If the seat cushion adjusts fore and aft, independent of the seat back, set this adjustment to the full rearward position. (S16.2.10.3.1)<br><input checked="" type="checkbox"/> N/A, no independent seat cushion height adjustment   |
| <b>X</b> | 6.  | Put the seat in its full rearward position. (S16.2.10.3.1)<br><input checked="" type="checkbox"/> N/A, the seat does not have a fore-aft adjustment   |
| <b>X</b> | 7.  | If the seat cushion height adjusts independent of the seat back, set this adjustment to the full down position. (S16.2.10.3.1)<br><input checked="" type="checkbox"/> N/A, no seat height adjustment  |
| <b>X</b> | 8.  | Draw a horizontal reference line on the side of the seat cushion.   |
| <b>X</b> | 9.  | Using only the controls that change the seat in the fore-aft direction, mark the fore-aft seat positions. Mark the side of the seat and a reference position directly below on a part of the vehicle that does not adjust. For manual seats, move the seat forward one detent at a time and mark each detent as was done for the full rearward position. For power seats, mark only the full rearward, middle, and full forward positions. Label three of the positions with the following: F for full forward, M for mid-position (if there is no mid position, label the closest adjustment position to the rear of the mid-point), and R for full rearward.<br><input checked="" type="checkbox"/> N/A, the seat does not have a fore-aft adjustment |
| <b>X</b> | 10. | Using only the controls that change the seat in the fore-aft direction, place the seat in the full rearward position and then place the seat in the middle fore-aft position for this test. (S8.1.2)<br><div style="margin-left: 20px;"> <input type="checkbox"/> Mid position<br/>                     If there is no mid position, put the seat in the closest adjustment position to the rear of the midpoint. Describe the location of the seat: Not adjustable                 </div>  |

- ☒ 11. If seat adjustments other than fore-aft are present and the horizontal reference line is no longer horizontal, use those adjustments to maintain the reference line as closely as possible to the horizontal. (S16.2.10.3.2.1)  
☒ N/A, no adjustments  
Reference line angle as tested: N/A
- ☒ 12. The seat back angle, if adjustable, is set at the manufacturer's nominal design riding position for a 50th percentile adult male in the manner specified by the manufacturer. (S4.5.4.1 (b) and S8.1.3)  
☒ N/A, no seat back angle adjustment  
Manufacturer's design seat back angle: Fixed  
☒ Tested seat back angle: Fixed
- ☒ 13. Position the test dummies according to dummy position placement instructions in Appendix B and include the positioning check sheets.
- ☒ 14. Fasten the seat belt latch.
- ☒ 15. Pull either 12 inches of belt webbing or the maximum available amount of belt webbing, whichever is less, from the retractor and then release it, allowing the belt webbing to return to the dummy's chest.
- ☒ 16. Locate the point where the centerline of the upper torso belt webbing crosses the midsagittal line on the dummy's chest. At that point pull the belt webbing out 3 inches from the dummy's chest and release until it is within one inch from the dummy's chest. (S10.8) Using a force measuring gage with a full scale range of no more than 1.5 pounds, measure the contact force perpendicular to the dummy's chest exerted by the belt webbing.  
☒ Contact Force (lb): 0.20  
☒ 0.0 to 0.7 pounds - Pass  
☐ Greater than 0.7 pounds - Fail

#### REMARKS:

I certify that I have read and performed each instruction.

Signature: Wayne Gahl

Date: 9/30/04

## DATA SHEET 10

### BELT CONTACT FORCE (S7.4.3)

Test Vehicle: 2005 Mercedes C230  
 Test Program: FMVSS 208 Compliance  
 Test Technician: Nick Kosinski

NHTSA No.: C50500  
 Test Date: 9/30/04

Test all Type 2 seat belts other than those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

DESIGNATED SEATING POSITION:	Center Rear Passenger
------------------------------	-----------------------

- |          |     |  |
|----------|-----|--|
| <b>X</b> | 1.  | Does the vehicle incorporate a webbing tension-relieving device?   |
|          |     | <input type="checkbox"/> Yes, this form is complete  |
|          |     | <b>X</b> No, continue with this check sheet  |
| <b>X</b> | 2.  | Position the seat's adjustable lumbar supports so that the lumbar support is in its lowest, retracted or deflated adjustment position. (S8.1.3)  |
|          |     | <b>X</b> N/A, no lumbar adjustment   |
| <b>X</b> | 3.  | Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. (S16.2.10.2)  |
|          |     | <b>X</b> N/A, no additional support adjustment   |
| <b>X</b> | 4.  | Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. (S16.2.10.2)  |
|          |     | <b>X</b> N/A, no independent fore-aft seat cushion adjustment  |
| <b>X</b> | 5.  | If the seat cushion adjusts fore and aft, independent of the seat back, set this adjustment to the full rearward position. (S16.2.10.3.1)  |
|          |     | <b>X</b> N/A, no independent seat cushion height adjustment  |
| <b>X</b> | 6.  | Put the seat in its full rearward position. (S16.2.10.3.1)   |
|          |     | <b>X</b> N/A, the seat does not have a fore-aft adjustment   |
| <b>X</b> | 7.  | If the seat cushion height adjusts independent of the seat back, set this adjustment to the full down position. (S16.2.10.3.1)   |
|          |     | <b>X</b> N/A, no seat height adjustment  |
| <b>X</b> | 8.  | Draw a horizontal reference line on the side of the seat cushion.  |
| <b>X</b> | 9.  | Using only the controls that change the seat in the fore-aft direction, mark the fore-aft seat positions. Mark the side of the seat and a reference position directly below on a part of the vehicle that does not adjust. For manual seats, move the seat forward one detent at a time and mark each detent as was done for the full rearward position. For power seats, mark only the full rearward, middle, and full forward positions. Label three of the positions with the following: F for full forward, M for mid-position (if there is no mid position, label the closest adjustment position to the rear of the mid-point), and R for full rearward. |
|          |     | <b>X</b> N/A, the seat does not have a fore-aft adjustment   |
| <b>X</b> | 10. | Using only the controls that change the seat in the fore-aft direction, place the seat in the full rearward position and then place the seat in the middle fore-aft position for this test. (S8.1.2)   |
|          |     | <input type="checkbox"/> Mid position  |
|          |     | If there is no mid position, put the seat in the closest adjustment position to the rear of the midpoint. Describe the location of the seat: Not adjustable  |

- ☒ 11. If seat adjustments other than fore-aft are present and the horizontal reference line is no longer horizontal, use those adjustments to maintain the reference line as closely as possible to the horizontal. (S16.2.10.3.2.1)  
☒ N/A, no adjustments  
Reference line angle as tested: N/A
- ☒ 12. The seat back angle, if adjustable, is set at the manufacturer's nominal design riding position for a 50th percentile adult male in the manner specified by the manufacturer. (S4.5.4.1 (b) and S8.1.3)  
☒ N/A, no seat back angle adjustment  
Manufacturer's design seat back angle: Fixed  
☒ Tested seat back angle: Fixed  
☒
- ☒ 13. Position the test dummies according to dummy position placement instructions in Appendix B and include the positioning check sheets.
- ☒ 14. Fasten the seat belt latch.
- ☒ 15. Pull either 12 inches of belt webbing or the maximum available amount of belt webbing, whichever is less, from the retractor and then release it, allowing the belt webbing to return to the dummy's chest.
- ☒ 16. Locate the point where the centerline of the upper torso belt webbing crosses the midsagittal line on the dummy's chest. At that point pull the belt webbing out 3 inches from the dummy's chest and release until it is within one inch from the dummy's chest. (S10.8) Using a force measuring gage with a full scale range of no more than 1.5 pounds, measure the contact force perpendicular to the dummy's chest exerted by the belt webbing.  
☒ Contact Force (lb): 0.08  
☒ 0.0 to 0.7 pounds – Pass  
☐ Greater than 0.7 pounds - Fail

#### REMARKS:

I certify that I have read and performed each instruction.

Signature: *Nick Kosinski*

Date: 9/30/04

## DATA SHEET 10

### BELT CONTACT FORCE (S7.4.3)

Test Vehicle: 2005 Mercedes C230  
 Test Program: FMVSS 208 Compliance  
 Test Technician: Nick Kosinski

NHTSA No.: C50500  
 Test Date: 9/30/04

Test all Type 2 seat belts other than those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

DESIGNATED SEATING POSITION:	Right Rear Passenger
------------------------------	----------------------

- |          |     |  |
|----------|-----|--|
| <b>X</b> | 1.  | Does the vehicle incorporate a webbing tension-relieving device?   |
|          |     | <input type="checkbox"/> Yes, this form is complete  |
|          |     | <b>X</b> No, continue with this check sheet  |
| <b>X</b> | 2.  | Position the seat's adjustable lumbar supports so that the lumbar support is in its lowest, retracted or deflated adjustment position. (S8.1.3)  |
|          |     | <b>X</b> N/A, no lumbar adjustment   |
| <b>X</b> | 3.  | Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. (S16.2.10.2)  |
|          |     | <b>X</b> N/A, no additional support adjustment   |
| <b>X</b> | 4.  | Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. (S16.2.10.2)  |
|          |     | <b>X</b> N/A, no independent fore-aft seat cushion adjustment  |
| <b>X</b> | 5.  | If the seat cushion adjusts fore and aft, independent of the seat back, set this adjustment to the full rearward position. (S16.2.10.3.1)  |
|          |     | <b>X</b> N/A, no independent seat cushion height adjustment  |
| <b>X</b> | 6.  | Put the seat in its full rearward position. (S16.2.10.3.1)   |
|          |     | <b>X</b> N/A, the seat does not have a fore-aft adjustment   |
| <b>X</b> | 7.  | If the seat cushion height adjusts independent of the seat back, set this adjustment to the full down position. (S16.2.10.3.1)   |
|          |     | <b>X</b> N/A, no seat height adjustment  |
| <b>X</b> | 8.  | Draw a horizontal reference line on the side of the seat cushion.  |
| <b>X</b> | 9.  | Using only the controls that change the seat in the fore-aft direction, mark the fore-aft seat positions. Mark the side of the seat and a reference position directly below on a part of the vehicle that does not adjust. For manual seats, move the seat forward one detent at a time and mark each detent as was done for the full rearward position. For power seats, mark only the full rearward, middle, and full forward positions. Label three of the positions with the following: F for full forward, M for mid-position (if there is no mid position, label the closest adjustment position to the rear of the mid-point), and R for full rearward. |
|          |     | <b>X</b> N/A, the seat does not have a fore-aft adjustment   |
| <b>X</b> | 10. | Using only the controls that change the seat in the fore-aft direction, place the seat in the full rearward position and then place the seat in the middle fore-aft position for this test. (S8.1.2)   |
|          |     | <input type="checkbox"/> Mid position  |
|          |     | If there is no mid position, put the seat in the closest adjustment position to the rear of the midpoint. Describe the location of the seat: Not adjustable  |



- ☒ 11. If seat adjustments other than fore-aft are present and the horizontal reference line is no longer horizontal, use those adjustments to maintain the reference line as closely as possible to the horizontal. (S16.2.10.3.2.1)
- ☒ N/A, no adjustments
- Reference line angle as tested: N/A
- ☒ 12. The seat back angle, if adjustable, is set at the manufacturer's nominal design riding position for a 50th percentile adult male in the manner specified by the manufacturer. (S4.5.4.1 (b) and S8.1.3)
- ☒ N/A, no seat back angle adjustment
- ☒ Manufacturer's design seat back angle: Fixed
- ☒ Tested seat back angle: Fixed
- ☒ 13. Position the test dummies according to dummy position placement instructions in Appendix B and include the positioning check sheets.
- ☒ 14. Fasten the seat belt latch.
- ☒ 15. Pull either 12 inches of belt webbing or the maximum available amount of belt webbing, whichever is less, from the retractor and then release it, allowing the belt webbing to return to the dummy's chest.
- ☒ 16. Locate the point where the centerline of the upper torso belt webbing crosses the midsagittal line on the dummy's chest. At that point pull the belt webbing out 3 inches from the dummy's chest and release until it is within one inch from the dummy's chest. (S10.8) Using a force measuring gage with a full scale range of no more than 1.5 pounds, measure the contact force perpendicular to the dummy's chest exerted by the belt webbing.
- ☒ Contact Force (lb): 0.08
- ☒ 0.0 to 0.7 pounds – Pass
- ☐ Greater than 0.7 pounds - Fail

REMARKS:

I certify that I have read and performed each instruction.

Signature: *Thick Kosinski*

Date: 9/30/04

# DATA SHEET 11

## LATCH PLATE ACCESS (S7.4.4)

Test Vehicle: 2005 Mercedes C230  
 Test Program: FMVSS 208 Compliance  
 Test Technician: Wayne Dahlke

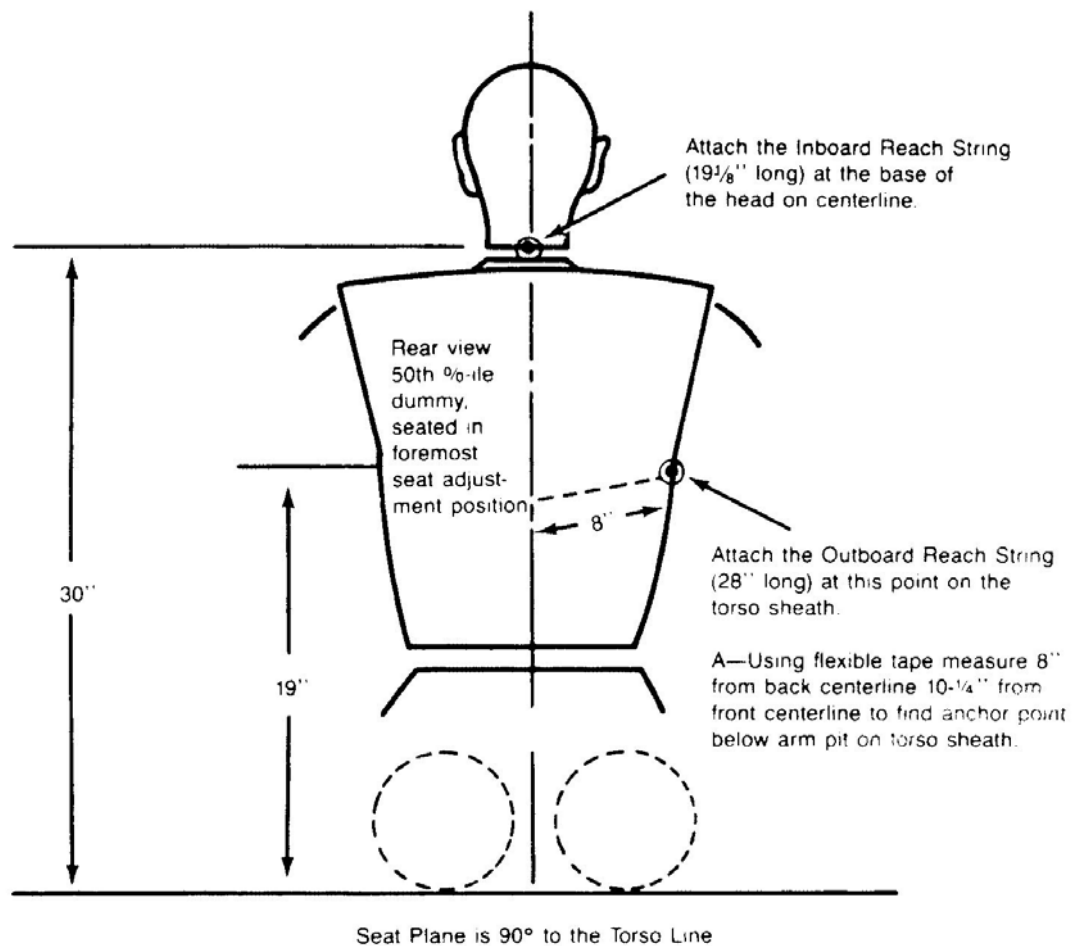
NHTSA No.: C50500  
 Test Date: 10/1/04

Test all front outboard seat belts other than those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

DESIGNATED SEATING POSITION:	Not Applicable For Any Position – Passenger Car
------------------------------	---

- |  |     |  |
|--|-----|--|
| <div style="background-color: yellow; width: 20px; height: 15px; margin: 0 auto;"></div> | 1.  | Position the seat's adjustable lumbar supports so that the lumbar support is in its lowest, retracted or deflated adjustment position. (8.1.3)   |
|  |     | <div style="background-color: yellow; width: 20px; height: 15px; display: inline-block;"></div> N/A, no lumbar adjustment  |
| <div style="background-color: yellow; width: 20px; height: 15px; margin: 0 auto;"></div> | 2.  | Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. (S16.2.10.2)  |
|  |     | <div style="background-color: yellow; width: 20px; height: 15px; display: inline-block;"></div> N/A, no additional support adjustment  |
| <div style="background-color: yellow; width: 20px; height: 15px; margin: 0 auto;"></div> | 3.  | If the seat cushion adjusts fore and aft, independent of the seat back, set this adjustment to the full rearward position. (S16.2.10.3.1)  |
|  |     | <div style="background-color: yellow; width: 20px; height: 15px; display: inline-block;"></div> N/A, no independent fore-aft seat cushion adjustment   |
| <div style="background-color: yellow; width: 20px; height: 15px; margin: 0 auto;"></div> | 4.  | If the seat cushion height adjusts independent of the seat back, set this adjustment to the full down position. (S16.2.10.3.1)   |
|  |     | <div style="background-color: yellow; width: 20px; height: 15px; display: inline-block;"></div> N/A, no independent seat cushion height adjustment   |
| <div style="background-color: yellow; width: 20px; height: 15px; margin: 0 auto;"></div> | 5.  | Put the seat in its full rearward position. (S16.2.10.3.1)   |
|  |     | <div style="background-color: yellow; width: 20px; height: 15px; display: inline-block;"></div> N/A, the seat does not have a fore-aft adjustment  |
| <div style="background-color: yellow; width: 20px; height: 15px; margin: 0 auto;"></div> | 6.  | If the seat height is adjustable, put it in the full down position. (S16.2.10.3.1)   |
|  |     | <div style="background-color: yellow; width: 20px; height: 15px; display: inline-block;"></div> N/A, no seat height adjustment   |
| <div style="background-color: yellow; width: 20px; height: 15px; margin: 0 auto;"></div> | 7.  | Draw a horizontal reference line on the side of the seat cushion   |
| <div style="background-color: yellow; width: 20px; height: 15px; margin: 0 auto;"></div> | 8.  | Using only the controls that change the seat in the fore-aft direction, mark the fore-aft seat positions. Mark the side of the seat and a reference position directly below on a part of the vehicle that does not adjust. For manual seats, move the seat forward one detent at a time and mark each detent as was done for the full rearward position. For power seats, mark only the full rearward, middle, and full forward positions. Label three of the positions with the following: F for full forward, M for mid-position (if there is no mid position, label the closest adjustment position to the rear of the mid-point), and R for full rearward. |
|  |     | <div style="background-color: yellow; width: 20px; height: 15px; display: inline-block;"></div> N/A, the seat does not have a fore-aft adjustment.   |
| <div style="background-color: yellow; width: 20px; height: 15px; margin: 0 auto;"></div> | 9.  | Using only the controls that change the seat in the fore-aft direction, place the seat in the full rearward position and then place the seat in the forward most fore-aft position for this test. (S10.7)  |
| <div style="background-color: yellow; width: 20px; height: 15px; margin: 0 auto;"></div> | 10. | If seat adjustments, other than fore-aft, are present and the horizontal reference line is no longer horizontal, use those adjustments to maintain the reference line as closely as possible to the horizontal.  |
|  |     | <div style="background-color: yellow; width: 20px; height: 15px; display: inline-block;"></div> N/A, no adjustments  |

<input type="checkbox"/>	Reference line angle as tested:
<input type="checkbox"/>	11. The seat back angle, if adjustable, is set at the manufacturer's nominal design riding position for a 50th percentile adult male in the manner specified by the manufacturer. (S4.5.4.1 (b) and S8.1.3)
<input type="checkbox"/>	<input type="checkbox"/> N/A, no seat back angle adjustment
<input type="checkbox"/>	Manufacturer's design seat back angle:
<input type="checkbox"/>	Tested seat back angle:
<input type="checkbox"/>	12. Position the test dummy using the procedures in Appendix A. (Some modifications to the positioning procedure may need to be made because the seat is in its forward most position. Note on the Appendix A positioning check sheet any deviations necessary to position the Part 572, Subpart E dummy.) Include the positioning check sheet with this form.
<input type="checkbox"/>	13. Position the adjustable seat belt anchorage in the manufacturer's nominal design position for a 50 <sup>th</sup> percentile adult male occupant.
<input type="checkbox"/>	14. Attach the inboard reach string to the base of the head following the instructions on Figure 3.
<input type="checkbox"/>	15. Attach the outboard reach string to the torso sheath following the instructions on Figure 3.
<input type="checkbox"/>	16. Place the latch plate in the stowed position.
<input type="checkbox"/>	17. Extend inboard reach string in front of the dummy and then backward and outboard to the latch plate to generate an arc of the reach envelope of the test dummy's arms. Is the latch plate within the reach envelope?
<input type="checkbox"/>	<input type="checkbox"/> Yes – Pass
<input type="checkbox"/>	<input type="checkbox"/> No
<input type="checkbox"/>	18. Extend outboard reach string in front of the dummy and then backward and outboard to the latch plate to generate an arc of the reach envelope of the test dummy's arms. Is the latch plate within the reach envelope?
<input type="checkbox"/>	<input type="checkbox"/> Yes – Pass
<input type="checkbox"/>	<input type="checkbox"/> No
<input type="checkbox"/>	19. Is the latch plate within the inboard (item 17) or outboard (item 18) reach envelope?
<input type="checkbox"/>	<input type="checkbox"/> Yes – Pass
<input type="checkbox"/>	<input type="checkbox"/> No – Fail
<input type="checkbox"/>	20. Using the clearance test block, specified in Figure 4, is there sufficient clearance between the vehicle seat and the side of vehicle interior to allow the test block to move unhindered to the latch plate or buckle?
<input type="checkbox"/>	<input type="checkbox"/> Yes – Pass
<input type="checkbox"/>	<input type="checkbox"/> No – Fail



**Figure 3. Location of Anchoring Points for Latchplate Reach Limiting Chains or Strings to Test for Latchplate Accessibility Using Subpart E Test Device**

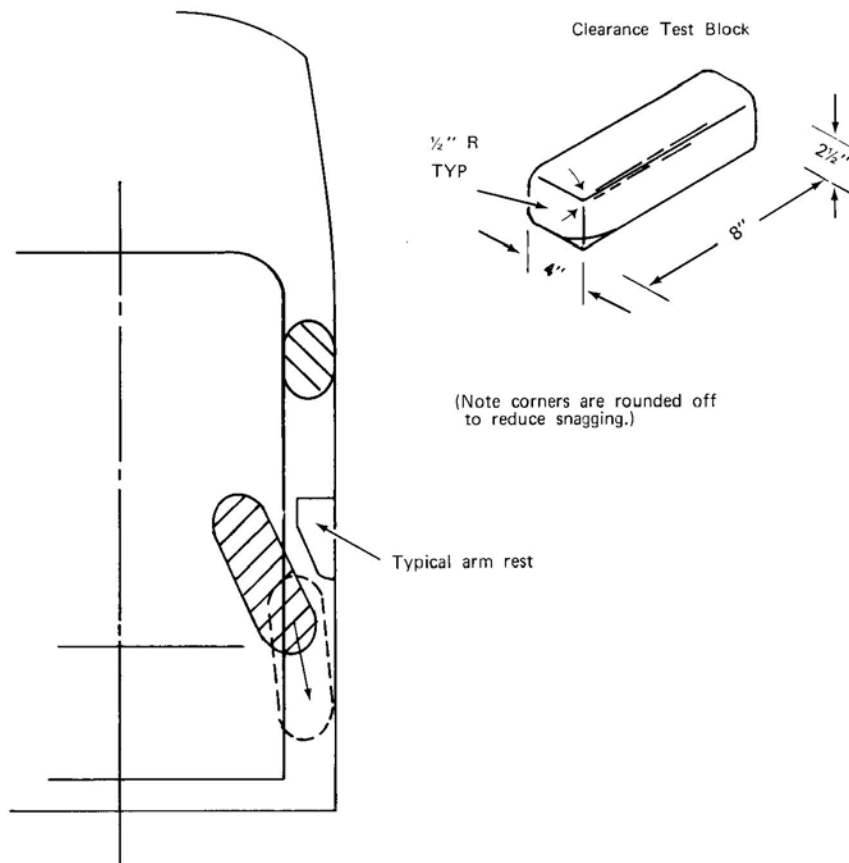


Figure 4—USE OF CLEARANCE TEST BLOCK TO DETERMINE HAND/ARM ACCESS

REMARKS:

I certify that I have read and performed each instruction.

Signature: Wayne Gahl

Date: 9/30/04

## DATA SHEET 12

### SEAT BELT RETRACTION (S7.4.5)

Test Vehicle: 2005 Mercedes C230  
 Test Program: FMVSS 208 Compliance  
 Test Technician: Wayne Dahlke

NHTSA No.: C50500  
 Test Date: 9/30/04

Test all front outboard seat belts other than those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

DESIGNATED SEATING POSITION:	Not Applicable For Any Position – Passenger Car
GVWR:	

- |                                     |                                     |  |
|-------------------------------------|-------------------------------------|--|
| <input checked="" type="checkbox"/> | 1.                                  | Is the vehicle a passenger car or walk-in van-type vehicle?  |
|                                     | <input checked="" type="checkbox"/> | Yes, this form is complete   |
|                                     | <input type="checkbox"/>            | No   |
| <input type="checkbox"/>            | 2.                                  | Position the seat's adjustable lumbar supports so that the lumbar support is in its lowest, retracted or deflated adjustment position. (S8.1.3)  |
|                                     | <input type="checkbox"/>            | N/A, no lumbar adjustment  |
| <input type="checkbox"/>            | 3.                                  | Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. (S16.2.10.2)  |
|                                     | <input type="checkbox"/>            | N/A, no additional support adjustment  |
| <input type="checkbox"/>            | 4.                                  | If the seat cushion adjusts fore and aft, independent of the seat back, set this adjustment to the full rearward position.) (S16.2.10.3.1)   |
|                                     | <input type="checkbox"/>            | N/A, no independent fore-aft seat cushion adjustment   |
| <input type="checkbox"/>            | 5.                                  | If the seat cushion height adjusts independent of the seat back, set this adjustment to the full down position. (S16.2.10.3.1)   |
|                                     | <input type="checkbox"/>            | N/A, no independent seat cushion height adjustment   |
| <input type="checkbox"/>            | 6.                                  | Put the seat in its full rearward position.  |
|                                     | <input type="checkbox"/>            | N/A, the seat does not have a fore-aft adjustment  |
| <input type="checkbox"/>            | 7.                                  | If the seat height is adjustable, put it in the full down position. (S8.1.2)   |
|                                     | <input type="checkbox"/>            | N/A, no seat adjustment  |
| <input type="checkbox"/>            | 8.                                  | Draw a horizontal line on the side of the seat cushion.  |
| <input type="checkbox"/>            | 9.                                  | Using only the controls that change the seat in the fore-aft direction, mark the fore-aft seat positions. Mark the side of the seat and a reference position directly below on a part of the vehicle that does not adjust. For manual seats, move the seat forward one detent at a time and mark each detent as was done for the full rearward position. For power seats, mark only the full rearward, middle, and full forward positions. Label three of the positions with the following: F for full forward, M for mid-position (if there is no mid position, label the closest adjustment position to the rear of the mid-point), and R for full rearward. |
|                                     | <input type="checkbox"/>            | N/A, the seat does not have a fore-aft adjustment.   |
| <input type="checkbox"/>            | 10.                                 | Using only the controls that change the seat in the fore-aft direction, place the seat in the middle fore-aft position. (S8.1.2)   |
| <input type="checkbox"/>            |                                     | If there is no mid position, put the seat in the closest adjustment position to the rear of the midpoint. Describe the location of the seat:   |

- ☐ 11. If seat adjustments, other than fore-aft, are present and the reference line is no longer horizontal, use those adjustments to maintain the reference line as closely as possible to the horizontal. (S16.2.10.3.2)
- ☐ N/A – no seat adjustment
- ☐ Reference angle as tested:
- ☐ 12. The seat back angle, if adjustable, is set at the manufacturer's nominal design riding position for a 50th percentile adult male in the manner specified by the manufacturer. (S8.1.3)
- ☐ N/A – no seat back angle adjustment
- ☐ Manufacturer's design seat back angle:
- ☐ Tested seat back angle:
- ☐ 13. If adjustable, set the head restraint at the full up and full forward position. (S8.1.3) Any adjustment of the head restraint shall be used to position it full forward. For example, if it rotates, rotate it such that the head restraint extends as far forward as possible.
- ☐ N/A – no head restraint adjustment
- ☐ 14. Place any adjustable seat belt anchorages at the vehicle manufacturer's nominal design position for a 50th percentile adult male occupant (S8.1.3)
- ☐ N/A – no adjustable upper seat belt anchorage
- ☐ Manufacturer's specified anchorage position:
- ☐ Tested anchorage position:
- ☐ 15. Is the driver seat a bucket seat?
- ☐ Yes, go to 15.1 and skip 15.2.
- ☐ No, go to 15.2 and skip 15.1
- ☐ 15.1 Bucket seats - Locate and mark a vertical Plane B through the longitudinal centerline of the seat. The longitudinal centerline of a bucket seat cushion is determined at the widest part of the seat cushion. Measure perpendicular to the longitudinal centerline of the vehicle.
- ☐ Record the width of the seat:
- ☐ Record the distance from the edge of the seat to Plane B.
- ☐ 15.2 Bench seats (including split bench seats):
- ☐ Driver seat: Locate and mark a vertical Plane B through the center of the steering wheel parallel to the vehicle longitudinal centerline.
- ☐ Passenger seat: Locate and mark a vertical longitudinal Plane B on the seat that is the same distance from the longitudinal centerline of the vehicle as the center of the steering wheel.
- ☐ Distance from the vehicle centerline to the center of the steering wheel:
- ☐ Distance from the vehicle centerline to Plane B:
- ☐ 16. Stow outboard armrests that are capable of being stowed. (S7.4.5)
- ☐ 17. Remove the arms of a Subpart E dummy and place it in the seat such that the midsagittal plane is coincident with Plane B and the upper torso rests against the seat back. (S10.4.1.1 & S10.4.1.2)
- ☐ 18. Rest the thighs on the seat cushion

<input type="checkbox"/>	19.	Position the H-point of the dummy within 0.5 inch of the vertical dimension and 0.5 inch of the horizontal dimension of a point 0.25 inch below the H-point determined by using the equipment and procedures specified in SAE J826 (APR 1980). (S10.4.2.1) Then measure the pelvic angle with respect to the horizontal using the pelvic angle gage. Adjust the dummy position until these three measurements are within the specifications. (S10.4.2.1 and S10.4.2.2)						
		<table border="0"> <tr> <td><input type="checkbox"/></td> <td>Horizontal inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Vertical inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Pelvic angle (20° to 25°)</td> </tr> </table>	<input type="checkbox"/>	Horizontal inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)	<input type="checkbox"/>	Vertical inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)	<input type="checkbox"/>	Pelvic angle (20° to 25°)
<input type="checkbox"/>	Horizontal inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)							
<input type="checkbox"/>	Vertical inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)							
<input type="checkbox"/>	Pelvic angle (20° to 25°)							
<input type="checkbox"/>	20.	Set the distance between the outboard knee clevis flange surfaces at 10.6 inches.						
<input type="checkbox"/>		Measured distance (10.6 inches) (S10.5):						
<input type="checkbox"/>	21.	To the extent practicable keep the thighs and the legs in a vertical plane (S10.5) and rest the thighs on the seat cushion while resting the feet on the floorpan or toe board.						
<input type="checkbox"/>	22.	Fasten the seat belt around the dummy.						
<input type="checkbox"/>	23.	Remove all slack from the lap belt portion. (S10.9)						
<input type="checkbox"/>	24.	Pull the upper torso webbing out of the retractor and allow it to retract; repeat this four times. (S10.9)						
<input type="checkbox"/>	25.	Apply a 2 to 4 pound tension load to the lap belt. (S10.9)						
<input type="checkbox"/>		Pound load applied:						
<input type="checkbox"/>	26.	Is the belt system equipped with a tension relieving device?						
		<input type="checkbox"/> Yes, continue						
		<input type="checkbox"/> No, go to 27						
<input type="checkbox"/>	26.1	Introduce the maximum amount of slack into the upper torso bet that is recommended by the vehicle manufacturer in the vehicle owner's manual. (S10.9). Go to 25.						
<input type="checkbox"/>	27.	Check the statement that applies to this test vehicle:						
<input type="checkbox"/>	27.1	Check the statement that applies to this test vehicle: The torso and lap belt webbing of the seat belt system automatically retracts to a stowed position when the adjacent vehicle door is in an open position and the seat belt latch plate is released.						
		<input type="checkbox"/> Pass						
	27.2	The torso and lap belt webbing of the seat belt system automatically retracts when the seat belt latch plate is released.						
		<input type="checkbox"/> Pass						
	27.3	Neither 27.1 or 27.2 apply						
		<input type="checkbox"/> Fail						
<input type="checkbox"/>	28.	With the webbing and hardware in the stowed position are the webbing and hardware prevented from being pinched when the door is closed?						
		<input type="checkbox"/> Yes – Pass						
		<input type="checkbox"/> No – Fail						



☐ 29. If this test vehicle has an open body (without doors) and has a belt system with a tension-relieving device, does the belt system fully retract when the tension-relieving device is deactivated?

☐

N/A

☐

Yes – Pass

☐

No – Fail

REMARKS:

I certify that I have read and performed each instruction.

Signature: Wayne Zuhl

Date: 9/30/04

## DATA SHEET 13

### SEAT BELT GUIDES AND HARDWARE (S7.4.6)

Test Vehicle: 2005 Mercedes C230  
 Test Program: FMVSS 208 Compliance  
 Test Technician: Wayne Dahlke

NHTSA No.: C50500  
 Test Date: 9/30/04

Test seat belts except those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

DESIGNATED SEATING POSITION:	Left Rear Passenger
------------------------------	---------------------

- |          |    |  |
|----------|----|--|
| <b>X</b> | 1. | Is the seat cushion movable so that the seat back serves a function other than seating? (S7.4.6.1 (b))   |
|          |    | <input type="checkbox"/> Yes, this form is complete  |
|          |    | <input checked="" type="checkbox"/> No, go to 2  |
| <b>X</b> | 2. | Is the seat removable? (S7.4.6.1(b))   |
|          |    | <input type="checkbox"/> Yes, this form is complete  |
|          |    | <input checked="" type="checkbox"/> No, go to 3  |
| <b>X</b> | 3. | Is the seat movable so that the space formerly occupied by the seat can be used for a secondary function? (S7.4.6.1(b))  |
|          |    | <input type="checkbox"/> Yes, this form is complete  |
|          |    | <input checked="" type="checkbox"/> No, go to 4  |
| <b>X</b> | 4. | Is the webbing designed to pass through the seat cushion or between the seat cushion and seat back? (S7.4.6.1(a))  |
|          |    | <input checked="" type="checkbox"/> Yes, go to 5   |
|          |    | <input type="checkbox"/> No, this form is complete   |
| <b>X</b> | 5. | Does one of the following three parts, the seat belt latch plate, the buckle, or the seat belt webbing, stay on top of or above the seat cushion under normal conditions (i.e., conditions other than when belt hardware is intentionally pushed behind the seat by a vehicle occupant)? (S7.4.6.1(a)) |
|          |    | <input checked="" type="checkbox"/> Yes – Pass   |
|          |    | <input type="checkbox"/> No – Fail   |
|          |    | Identify the part(s) on top or above the seat.   |
|          |    | <input checked="" type="checkbox"/> Seat belt latch plate  |
|          |    | <input checked="" type="checkbox"/> Buckle   |
|          |    | <input checked="" type="checkbox"/> Seat belt webbing  |
| <b>X</b> | 6. | Are the remaining two seat belt parts accessible under normal conditions?  |
|          |    | <input checked="" type="checkbox"/> Yes – Pass   |
|          |    | <input type="checkbox"/> No – Fail   |
| <b>X</b> | 7. | The buckle and latch plate do not pass through the guides or conduits provided and fall behind the seat when the belt is completely retracted or, if the belt is nonretractable, the belt is unlatched. (S7.4.6.2)   |
|          |    | <input checked="" type="checkbox"/> Yes – Pass   |
|          |    | <input type="checkbox"/> No – Fail   |

- ☒ 8. The buckle and latch plate do not pass through the guides or conduits provided and fall behind the seat when the seat is moved to any position to which it is designed to be adjusted. (S7.4.6.2)
- ☒ Yes – Pass  
☐ No – Fail
- ☒ 9. The buckle and latch plate do not pass through the guides or conduits provided and fall behind the seat when the seat back, if foldable, is folded forward as far as possible and then moved backward into position. (S7.4.6.2)
- ☒ Yes – Pass  
☐ No – Fail
- ☒ 10. Is the inboard receptacle end of the seat belt assembly, installed in the front outboard designated seating position, accessible with the center armrest in any position to which it can be adjusted (without moving the armrest)? (S7.4.6.2)
- ☐ Yes – Pass  
☐ No – Fail  
☒ N/A – Rear seat

REMARKS:

I certify that I have read and performed each instruction.

Signature: Wayne Zuhl

Date: 9/30/04

## DATA SHEET 13

### SEAT BELT GUIDES AND HARDWARE (S7.4.6)

Test Vehicle: 2005 Mercedes C230  
 Test Program: FMVSS 208 Compliance  
 Test Technician: Wayne Dahlke

NHTSA No.: C50500  
 Test Date: 9/30/04

Test seat belts except those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

DESIGNATED SEATING POSITION:	Center Rear Passenger
------------------------------	-----------------------

- |          |    |  |                          |                            |                          |                           |
|----------|----|--|--------------------------|----------------------------|--------------------------|---------------------------|
| <b>X</b> | 1. | Is the seat cushion movable so that the seat back serves a function other than seating? (S7.4.6.1 (b))   | <input type="checkbox"/> | Yes, this form is complete | <b>X</b>                 | No, go to 2               |
| <b>X</b> | 2. | Is the seat removable? (S7.4.6.1(b))   | <input type="checkbox"/> | Yes, this form is complete | <b>X</b>                 | No, go to 3               |
| <b>X</b> | 3. | Is the seat movable so that the space formerly occupied by the seat can be used for a secondary function? (S7.4.6.1(b))  | <input type="checkbox"/> | Yes, this form is complete | <b>X</b>                 | No, go to 4               |
| <b>X</b> | 4. | Is the webbing designed to pass through the seat cushion or between the seat cushion and seat back? (S7.4.6.1(a))  | <b>X</b>                 | Yes, go to 5               | <input type="checkbox"/> | No, this form is complete |
| <b>X</b> | 5. | Does one of the following three parts, the seat belt latch plate, the buckle, or the seat belt webbing, stay on top of or above the seat cushion under normal conditions (i.e., conditions other than when belt hardware is intentionally pushed behind the seat by a vehicle occupant)? (S7.4.6.1(a)) | <b>X</b>                 | Yes – Pass                 | <input type="checkbox"/> | No – Fail                 |
|          |    | Identify the part(s) on top or above the seat.   |                          |                            |                          |                           |
|          |    | <b>X</b>   |                          | Seat belt latch plate      |                          |                           |
|          |    | <b>X</b>   |                          | Buckle                     |                          |                           |
|          |    | <b>X</b>   |                          | Seat belt webbing          |                          |                           |
| <b>X</b> | 6. | Are the remaining two seat belt parts accessible under normal conditions?  | <b>X</b>                 | Yes – Pass                 | <input type="checkbox"/> | No – Fail                 |
| <b>X</b> | 7. | The buckle and latch plate do not pass through the guides or conduits provided and fall behind the seat when the belt is completely retracted or, if the belt is nonretractable, the belt is unlatched. (S7.4.6.2)   | <b>X</b>                 | Yes – Pass                 | <input type="checkbox"/> | No – Fail                 |

- ☒ 8. The buckle and latch plate do not pass through the guides or conduits provided and fall behind the seat when the seat is moved to any position to which it is designed to be adjusted. (S7.4.6.2)
- ☒ Yes – Pass  
☐ No – Fail
- ☒ 9. The buckle and latch plate do not pass through the guides or conduits provided and fall behind the seat when the seat back, if foldable, is folded forward as far as possible and then moved backward into position. (S7.4.6.2)
- ☒ Yes – Pass  
☐ No – Fail
- ☒ 10. Is the inboard receptacle end of the seat belt assembly, installed in the front outboard designated seating position, accessible with the center armrest in any position to which it can be adjusted (without moving the armrest)? (S7.4.6.2)
- ☐ Yes – Pass  
☐ No – Fail  
☒ N/A – Rear seat

REMARKS:

I certify that I have read and performed each instruction.

Signature: Wayne Gahl

Date: 9/30/04

## DATA SHEET 13

### SEAT BELT GUIDES AND HARDWARE (S7.4.6)

Test Vehicle: 2005 Mercedes C230  
 Test Program: FMVSS 208 Compliance  
 Test Technician: Wayne Dahlke

NHTSA No.: C50500  
 Test Date: 9/30/04

Test seat belts except those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

DESIGNATED SEATING POSITION:	Right Rear Passenger
------------------------------	----------------------

- |          |    |  |                          |                            |                          |                          |                           |
|----------|----|--|--------------------------|----------------------------|--------------------------|--------------------------|---------------------------|
| <b>X</b> | 1. | Is the seat cushion movable so that the seat back serves a function other than seating? (S7.4.6.1 (b))   | <input type="checkbox"/> | Yes, this form is complete | <b>X</b>                 | <input type="checkbox"/> | No, go to 2               |
| <b>X</b> | 2. | Is the seat removable? (S7.4.6.1(b))   | <input type="checkbox"/> | Yes, this form is complete | <b>X</b>                 | <input type="checkbox"/> | No, go to 3               |
| <b>X</b> | 3. | Is the seat movable so that the space formerly occupied by the seat can be used for a secondary function? (S7.4.6.1(b))  | <input type="checkbox"/> | Yes, this form is complete | <b>X</b>                 | <input type="checkbox"/> | No, go to 4               |
| <b>X</b> | 4. | Is the webbing designed to pass through the seat cushion or between the seat cushion and seat back? (S7.4.6.1(a))  | <b>X</b>                 | Yes, go to 5               | <input type="checkbox"/> | <input type="checkbox"/> | No, this form is complete |
| <b>X</b> | 5. | Does one of the following three parts, the seat belt latch plate, the buckle, or the seat belt webbing, stay on top of or above the seat cushion under normal conditions (i.e., conditions other than when belt hardware is intentionally pushed behind the seat by a vehicle occupant)? (S7.4.6.1(a)) | <b>X</b>                 | Yes – Pass                 | <input type="checkbox"/> | <input type="checkbox"/> | No – Fail                 |
|          |    | Identify the part(s) on top or above the seat.   |                          |                            |                          |                          |                           |
|          |    | <b>X</b> Seat belt latch plate   |                          |                            |                          |                          |                           |
|          |    | <b>X</b> Buckle  |                          |                            |                          |                          |                           |
|          |    | <b>X</b> Seat belt webbing   |                          |                            |                          |                          |                           |
| <b>X</b> | 6. | Are the remaining two seat belt parts accessible under normal conditions?  | <b>X</b>                 | Yes – Pass                 | <input type="checkbox"/> | <input type="checkbox"/> | No – Fail                 |
| <b>X</b> | 7. | The buckle and latch plate do not pass through the guides or conduits provided and fall behind the seat when the belt is completely retracted or, if the belt is nonretractable, the belt is unlatched. (S7.4.6.2)   | <b>X</b>                 | Yes – Pass                 | <input type="checkbox"/> | <input type="checkbox"/> | No – Fail                 |

- ☒ 8. The buckle and latch plate do not pass through the guides or conduits provided and fall behind the seat when the seat is moved to any position to which it is designed to be adjusted. (S7.4.6.2)
- ☒ Yes – Pass  
☐ No – Fail
- ☒ 9. The buckle and latch plate do not pass through the guides or conduits provided and fall behind the seat when the seat back, if foldable, is folded forward as far as possible and then moved backward into position. (S7.4.6.2)
- ☒ Yes – Pass  
☐ No – Fail
- ☒ 10. Is the inboard receptacle end of the seat belt assembly, installed in the front outboard designated seating position, accessible with the center armrest in any position to which it can be adjusted (without moving the armrest)? (S7.4.6.2)
- ☐ Yes – Pass  
☐ No – Fail  
☒ N/A – Rear seat

REMARKS:

I certify that I have read and performed each instruction.

Signature: Wayne Gahl

Date: 9/30/04

## DATA SHEET 14

### MARKING OF REFERENCE POINTS FOR VARIOUS TEST POSITIONS AND POINTS

Test Vehicle: 2005 Mercedes C230  
 Test Program: FMVSS 208 Compliance  
 Test Technician: Eric Peschman

NHTSA No.: C50500  
 Test Date: 3/10/05

1. Driver Designated Seating Position:

- |                                     |      |  |
|-------------------------------------|------|--|
| <input checked="" type="checkbox"/> | 1.1  | Position the seat's adjustable lumbar supports so that the lumbar supports are in the lowest, retracted or deflated adjustment positions. (S16.2.10.1)   |
|                                     |      | <input type="checkbox"/> N/A – No lumbar adjustment  |
| <input checked="" type="checkbox"/> | 1.2  | Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position (S16.2.10.2)   |
|                                     |      | <input checked="" type="checkbox"/> N/A – No additional support adjustment   |
| <input checked="" type="checkbox"/> | 1.3  | Mark a point (seat cushion reference point) on the side of the seat cushion that is between 150 mm and 250 mm from the front edge of the seat cushion.   |
| <input checked="" type="checkbox"/> | 1.4  | Draw a line (seat cushion reference line) through the seat cushion reference point.  |
| <input checked="" type="checkbox"/> | 1.5  | Using only the controls that primarily move the seat in the fore-aft direction, move the seat cushion reference point to the rearmost position.  |
| <input checked="" type="checkbox"/> | 1.6  | If the seat cushion adjusts fore-aft, independent of the seat back, use only the controls that primarily move the seat cushion in the fore-aft direction to move the seat cushion reference point to the rearmost position (S16.2.10.3)  |
|                                     |      | <input checked="" type="checkbox"/> N/A – No independent fore-aft seat cushion adjustment  |
| <input checked="" type="checkbox"/> | 1.7  | Using any part of any control, other than the parts just used for fore-aft positioning, determine the range of angles of the seat cushion reference line and set the seat cushion reference line at the mid-angle.   |
| <input checked="" type="checkbox"/> |      | Maximum Angle: (Fwd Up) 11.5 Degrees   |
| <input checked="" type="checkbox"/> |      | Minimum Angle: (Fwd Down) 0.5 Degrees  |
| <input checked="" type="checkbox"/> |      | Mid-angle: (Fwd Up) 5.5 Degrees  |
| <input checked="" type="checkbox"/> | 1.8  | If the seat and/or seat cushion height is adjustable, use any part of any control other than those which primarily move the seat or seat cushion fore-aft, to put the seat cushion reference point in its lowest position with the seat cushion reference line angle at the mid-angle found in 1.7.  |
|                                     |      | <input type="checkbox"/> N/A – No seat height adjustment   |
| <input checked="" type="checkbox"/> | 1.9  | Using only the controls that primarily move the seat in the fore-aft direction, verify the seat is in the rearmost position.   |
| <input checked="" type="checkbox"/> | 1.10 | Using only the controls that primarily move the seat in the fore-aft direction, mark for future reference the fore-aft seat positions. Mark each position so that there is a visual indication when the seat is at a particular position. For manual seats, move the seat forward one detent at a time and mark each detent. For power seats, mark only the rearmost, middle, and foremost positions. Label three of the positions with the following: F for foremost, M for mid-position (if there is no mid-position, label the closest adjustment position to the rear of the mid-point), and R for rearmost. |
| <input checked="" type="checkbox"/> | 1.11 | Use only the controls that primarily move the seat in the fore-aft direction to place the seat in the rearmost position.   |
| <input checked="" type="checkbox"/> | 1.12 | Using any controls, other than the controls that primarily move the seat and/or seat cushion in the fore-aft direction, find and visually mark for future reference the maximum, minimum, and middle height of the seat cushion reference point with the seat cushion reference line at the mid-angle determined in 1.7.   |



- ☒ 1.13 Using only the controls that primarily move the seat and/or seat cushion in the fore-aft direction, place the seat in the mid-fore-aft position.
- ☒ 1.14 Using any controls, other than the controls that primarily move the seat in the fore-aft direction, find and visually mark for future reference the maximum, minimum, and middle height of the seat cushion reference point with the seat cushion reference line at the mid-angle determined in 1.7.
- ☒ 1.15 Using only the controls that change the seat in the fore-aft direction, place the seat in the foremost position.
- ☒ 1.16 Using any controls, other than the controls that primarily move the seat in the fore-aft direction, find and visually mark for future reference the maximum, minimum, and middle height of the seat cushion reference point with the seat cushion reference line at the mid-angle determined in 1.7.
- ☒ 1.17 Visually mark for future reference the seat back angle, if adjustable, at the manufacturer's nominal design riding position for a 50<sup>th</sup> percentile adult male in the manner specified by the manufacturer.
- ☐ N/A – No seat back angle adjustment
- ☒ Manufacturer's design seat back angle: 23.5°
- ☒ 1.18 Is the seat a bucket seat?
- ☒ Yes, go to 1.18.1 and skip 1.18.2
- ☐ No, go to 1.18.2 and skip 1.18.1
- 1.18.1 Bucket seats:
- ☒ Locate and mark for future reference the longitudinal centerline of the seat cushion. The longitudinal centerline of a bucket seat cushion is determined at the widest part of the seat cushion. Measure perpendicular to the longitudinal centerline of the vehicle. (S16.3.1.10)
- ☒ Record the width of the seat cushion: 510 mm
- ☒ One half the width of the seat cushion is: 255 mm
- ☒ Record the distance from the edge of the seat cushion to the seat mark: 255 mm
- 1.18.2 Bench seats:
- ☐ Locate and mark for future reference the longitudinal line on the seat cushion that marks the longitudinal vertical plane through the centerline of the steering wheel.
2. Passenger Designated Seating Position
- ☒ 2.1 Is the seat adjustable independent of the driver seating position?
- ☒ Yes, go to 2.2
- ☐ No, go to 2.18
- ☒ 2.2 Position the seat's adjustable lumbar supports so that the lumbar supports are in the lowest, retracted or deflated adjustment positions (S16.2.10.1, S20.1.9.1, S22.1.7.1)
- ☒ N/A – No lumbar adjustment
- ☒ 2.3 Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. (S16.2.10.2, S20.1.9.2, S22.1.7.2)
- ☒ N/A – No additional support adjustment
- ☒ 2.4 Mark a point (seat cushion reference point) on the side of the seat cushion that is between 150 mm and 250 mm from the front edge of the seat cushion.
- ☒ 2.5 Draw a line (seat cushion reference line) through the seat cushion reference point.
- ☒ 2.6 Using only the controls that primarily move the seat in the fore-aft direction, move the seat cushion reference point to the rearmost position.

<input checked="" type="checkbox"/>	2.7	If the seat cushion adjusts fore-aft, independent of the seat back, use only the controls that primarily move the seat cushion in the fore-aft direction to move the seat cushion reference point to the rearmost position (S16.2.10.3, S20.1.9.3, S22.1.7.3)
<input checked="" type="checkbox"/>		N/A – No independent fore-aft seat cushion adjustment.
<input checked="" type="checkbox"/>	2.8	Using any part of the control, other than the parts just used for fore-aft positioning, determine the range of angles of the seat cushion reference line and set the seat cushion reference line at the mid-angle.
<input checked="" type="checkbox"/>		Maximum Angle: (Fwd Down) 14.3 Degrees
<input checked="" type="checkbox"/>		Minimum Angle: (Fwd Down) 2.3 Degrees
<input checked="" type="checkbox"/>		Mid-angle: (Fwd Down) 8.3 Degrees
<input checked="" type="checkbox"/>	2.9	If the seat and/or seat cushion height is adjustable, use any part of any control other than those which primarily move the seat or seat cushion fore-aft, to put the seat cushion reference point in its lowest position with the seat cushion reference line angle at the mid-range angle.
		<input type="checkbox"/> N/A – No seat height adjustment
<input checked="" type="checkbox"/>	2.10	Using only the controls that primarily move the seat and/or seat cushion in the fore-aft direction, verify the seat is in the rearmost position.
<input checked="" type="checkbox"/>	2.11	Using only the controls that primarily move the seat in the fore-aft direction, mark for future reference the fore-aft seat positions. Mark each position so that there is a visual indication when the seat is at a particular position. For manual seats, move the seat forward one detent at a time and mark each detent. For power seats, mark only the rearmost, middle, and foremost positions. Label three of the positions with the following: F for foremost, M for mid-position (if there is no mid-position, label the closest adjustment position to the rear of the mid-point), and R for rearmost.
<input checked="" type="checkbox"/>	2.12	Using only the controls that primarily move the seat in the fore-aft direction, place the seat in the rearmost position.
<input checked="" type="checkbox"/>	2.13	Using any controls, other than the controls that primarily move the seat in the fore-aft direction, find and visually mark for future reference the maximum, minimum, and middle height of the seat cushion reference point with the seat cushion reference line at the mid-angle determined in 2.8.
		<input type="checkbox"/> N/A – No seat height adjustment Go to 2.18
<input checked="" type="checkbox"/>	2.14	Using only the controls that primarily move the seat in the fore-aft direction, place the seat in the mid-fore-aft position.
<input checked="" type="checkbox"/>	2.15	Using any controls, other than the controls that primarily move the seat in the fore-aft direction, find and visually mark for future reference the maximum, minimum, and middle height of the seat cushion reference point with the seat cushion reference line at the mid-angle determined in 2.8.
<input checked="" type="checkbox"/>	2.16	Using only the controls that change the seat in the fore-aft direction, place the seat in the foremost position.
<input checked="" type="checkbox"/>	2.17	Using any controls, other than the controls that primarily move the seat in the fore-aft direction, find and visually mark for future reference the maximum, minimum, and middle height of the seat cushion reference point with the seat cushion reference line at the mid-angle determined in 2.8.

<input checked="" type="checkbox"/>	2.18	Visually mark for future reference the seat back angle, if adjustable, at the manufacturer's nominal design riding position for a 50 <sup>th</sup> percentile adult male in the manner specified by the manufacturer.
		<input type="checkbox"/> N/A – No seat back angle adjustment
		<input type="checkbox"/> N/A – The seat back angle adjustment is controlled by the setting of the driver seat back angle.
<input checked="" type="checkbox"/>		Manufacturer's design seat back angle: 23.5°
<input checked="" type="checkbox"/>		Actual seat back angle: 23.5°
<input checked="" type="checkbox"/>	2.19	Is the seat a bucket seat?
		<input checked="" type="checkbox"/> Yes, go to 2.19.1 and skip 2.19.2
		<input type="checkbox"/> No, go to 2.19.2 and skip 2.19.1
		2.19.1 Bucket seats:
		<input checked="" type="checkbox"/> Locate and mark for future reference the longitudinal centerline of the seat cushion. (S20.2.1.3, S22.2.1.3) The longitudinal centerline of a bucket seat cushion is determined at the widest part of the seat cushion. Measure perpendicular to the longitudinal centerline of the vehicle. (S20.1.10)
<input checked="" type="checkbox"/>		Record the width of the seat cushion: 510 mm
<input checked="" type="checkbox"/>		One half the width of the seat cushion is: 255 mm
		<input checked="" type="checkbox"/> Record the distance from the edge of the seat cushion to the longitudinal centerline of the seat cushion. (The vertical plane through this longitudinal centerline is Plane B for suppression.) 255 mm
		2.19.2 Bench seats:
		<input type="checkbox"/> Locate and mark for future reference the longitudinal centerline of the passenger seat cushion. The longitudinal centerline is the same distance from the longitudinal centerline of the vehicle as the center of the steering wheel. (S20.2.1.3, S22.2.1.3)
		<input type="checkbox"/> Record the distance from the longitudinal centerline of the vehicle to the center of the steering wheel:
		<input type="checkbox"/> Record the distance from the longitudinal centerline of the vehicle to the longitudinal centerline of the seat cushion. (The vertical plane through this longitudinal centerline is Plane B for suppression.)
<input checked="" type="checkbox"/>	3.	Head Restraints
		<input type="checkbox"/> N/A, vehicle contains automatic head restraints
		<input type="checkbox"/> N/A, there is no head restraint adjustment
<input checked="" type="checkbox"/>	3.1	Left outboard
<input checked="" type="checkbox"/>	3.1.1	Adjust the head restraint to its lowest position. (S16.3.4.2)
<input checked="" type="checkbox"/>	3.1.2	Any adjustment of the head restraint shall be used to position it full forward. For example, if it rotates, rotate it such that the head restraint extends as far forward as possible. <b>Mark</b> the foremost position.
<input checked="" type="checkbox"/>	3.1.3	Measure the vertical distance from the top most point of the head restraint to the bottom most point. Locate and <b>mark</b> a horizontal plane through the midpoint of this distance.
<input checked="" type="checkbox"/>		Vertical height of head restraint (mm): 210
<input checked="" type="checkbox"/>		Mid-point height (mm): 105
<input checked="" type="checkbox"/>	3.2	Right outboard
<input checked="" type="checkbox"/>	3.2.1	Adjust the head restraint to its lowest position. (S16.3.4.2)

- ☒ 3.2.2 Any adjustment of the head restraint shall be used to position it full forward. For example, if it rotates, rotate it such that the head restraint extends as far forward as possible. **Mark** the foremost position.
- ☒ 3.2.3 Measure the vertical distance from the top most point of the head restraint to the bottom most point. Locate and **mark** a horizontal plane through the midpoint of this distance.  
☒ Vertical height of head restraint (mm): 194  
☐ Mid-point height (mm): 97
- ☒ 4. Steering Wheel
- ☒ 4.1 Is the steering wheel adjustable up and down and/or in and out?
- ☒ Yes, go to 4.2  
☐ No, this form is complete
- ☒ 4.2 Find and **mark** for future reference each up and down position. Label three of the positions with the following: H for highest, M for mid-position (if there is no mid-position, label the next lowest adjustment position), and L for lowest.  
☐ N/A, steering wheel is not adjustable up and down
- ☒ 4.3 Find and **mark** for future references each in and out position. Label three of the positions with the following: F for foremost, M for mid-position (if there is no mid-position, label the next rearmost adjustment position), and R for rearmost.  
☒ N/A, steering wheel is not adjustable in and out
- ☒ 5. Driver Low Risk Deployment  
☐ N/A, no low risk deployment tests scheduled
- ☒ 5.1 Position the steering wheel so the front wheels are in the straight-ahead position. (S26.2.1)
- ☒ 5.2 Position any adjustable parts of the steering controls to the mid-position as determined in item 3 above. If a mid-position adjustment is not achievable, position the controls to the next lowest detent position. (S26.2.1)
- ☒ 5.3 Locate the vertical plane parallel to the vehicle longitudinal centerline through the geometric center of the opening through which the driver air bag deploys into the occupant compartment. This is referred to as "Plane E". (Check determination method below.) (S26.2.6)  
☒ Plane E determined using manufacturer's information supplied by the COTR. (Found in Appendix B on page B-231) OR  
☐ Plane E determined by test lab personnel and approved by the COTR. (Include supporting documentation in the test report.)

	Ey (mm)
"Plane E" Measurement:	
Measured:	
Specified:	
Verify Measured Equals Specified +/- 6mm:	

- ☒ 5.4 Locate the horizontal plane through the highest point of the air bag module cover. This is referred to as "Plane F." (Check determination method below.) (S26.2.6)
- ☒ Plane F determined using manufacturer's information supplied by the COTR .  
(Found in Appendix B on page B-231) OR
- ☐ Plane F determined by test lab personnel and approved by the COTR.  
(Include supporting documentation in the test report.)

	Fz (mm)
"Plane F" Measurement:	
Measured:	
Specified:	
Verify Measured Equals Specified +/- 6mm:	

- ☒ 6. Passenger Low Risk Deployment – Planes C and D

☐ N/A, no low risk deployment tests scheduled

- ☒ 6.1 Locate the horizontal plane through the geometric center of the opening through which the right front air bag deploys into the occupant compartment. This is referred to as "Plane C." (Check location method below.) (S22.4.1.3)

☒ Plane C located using manufacturer's information supplied by the COTR.  
(Found in Appendix B on pages B-232) OR

☐ Plane C located by test lab personnel and approved by the COTR.  
(Include supporting documentation in the test report.)

	Cz (mm)
"Plane C" Measurement:	
Measured:	
Specified:	
Verify Measured Equals Specified +/- 6mm:	

- ☒ 6.2 Locate the vertical plane parallel to the vehicle longitudinal centerline through the geometric center of the opening through which the right front air bag deploys into the occupant compartment. This is referred to as "Plane D." (Check determination method below.) (S22.4.1.2)

☒ Plane D determined using manufacturer's information supplied by the COTR.  
(Found in Appendix B on pages B-232) OR

☐ Plane D determined by test lab personnel and approved by the COTR.  
(Include supporting documentation in the test report.)

	Dy (mm)
"Plane D" Measurement:	
Measured:	
Specified:	
Verify Measured Equals Specified +/- 6mm:	

- ☐ 6.3 **Mark** the intersection of Planes C and D on the instrument panel.

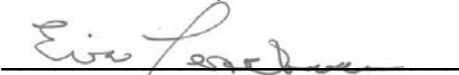
- ☒ 7. 5<sup>th</sup> Female Dummy

**Mark** a point on the chin of the dummy 40 mm below the center of the mouth. (Chin Point) (S26.2.6)

- ☒ 8. 6-Year-Old Dummy  
Locate and **mark** a point on the front of the dummy's chest jacket on the midsagittal plane which is 139 mm (5.5 in)  $\pm$  3 mm ( $\pm$  0.1 in) along the surface of the skin down from the top of the skin at the neck line. Designate this point as "Point 1." (S24.4.1.1)
- ☒ "Point 1" measurement (mm): 139
- ☒ 9. 3-Year-Old Dummy  
Locate and **mark** a point on the front of the dummy's chest jacket on the midsagittal plane which is 114 mm (4.5 in)  $\pm$  3 mm ( $\pm$  0.1 in) along the surface of the skin down from the top of the skin at the neck line. Designate this point as "Point 1." (S22.4.1.1)
- ☒ "Point 1" measurement (mm  $\pm$  3 mm): 114

REMARKS:

I certify that I have read and performed each instruction.

Signature: 

Date: 3/10/05

## DATA SHEET 15 SUMMARY

Suppression Test Using 12-month-old CRABI Dummy (Part 572, Subpart R)  
Section B Rear Facing CRS

NHTSA No.:	C50500	TEST DATE:	1/20/05
LABORATORY:	MGA	TECHNICIANS:	JL
DUMMY TYPE:	12 Month Old	DUMMY SERIAL NO.:	082

CHILD RESTRAINT NAME:	Britax
CHILD RESTRAINT MODEL:	Handle With Care 191
DATE OF MANUFACTURE:	5-26-2000

Base: \_\_On \_\_Off X N/A-Restraint does not have a removable base

Manufacturer's design seat back angle: 23.5°

Tested seat back angle: 23.5°

Manufacturer's specified anchorage position: Top

Tested anchorage position: Top

Blanket and visor combinations were not used

### Test Summary

Seat Belt	Seat Slide	Cinch Load (N)	Handle Down	Handle Up
Belted Rear Facing	Forward 14*	127	Suppressed	Not Tested
	Middle	129	Suppressed	Not Tested
	Rearward	132	Suppressed	Not Tested
Unbelted Rear Facing	Forward 14*	N/A	Suppressed	Not Tested
	Middle	N/A	Suppressed	Not Tested
	Rearward	N/A	Suppressed	Not Tested
Unbelted Forward Facing	Forward 7*	N/A	Suppressed	Not Tested
	Middle	N/A	Suppressed	Not Tested
	Rearward	N/A	Suppressed	Not Tested

Successful Unbelted 5<sup>th</sup> percentile Female Dummy Reactivation was performed with the seat in the Rearward position. (SN506)

\* The CRS would not fit in this Forward Seat Slide position. If there is a number in the Seat Slide column, it indicates the fore-aft detent position with respect to the foremost position. (1 = Full Forward; 53 = Full Rearward; 53 total Seat Slide detents)

## DATA SHEET 15 SUMMARY

Suppression Test Using 12-month-old CRABI Dummy (Part 572, Subpart R)  
Section B Rear Facing CRS

NHTSA No.:	C50500	TEST DATE:	1-20-05
LABORATORY:	MGA	TECHNICIANS:	JL
DUMMY TYPE:	12 Month Old	DUMMY SERIAL NO.:	082

CHILD RESTRAINT NAME:	Evenflo
CHILD RESTRAINT MODEL:	First Choice 204
DATE OF MANUFACTURE:	6-20-2000

Base: ☐ On ☐ Off ☒ N/A-Restraint does not have a removable base

Manufacturer's design seat back angle: 23.5°

Tested seat back angle: 23.5°

Manufacturer's specified anchorage position: Top

Tested anchorage position: Top

Blanket and visor combinations were not used

### Test Summary

Seat Belt	Seat Slide	Cinch Load (N)	Handle Down	Handle Up
Belted Rear Facing	Forward 19*	128	Not Tested	Suppressed
	Middle	129	Not Tested	Suppressed
	Rearward	129	Suppressed	Not Tested
Unbelted Rear Facing	Forward	N/A	Not Tested	Won't Fit
	Middle	N/A	Not Tested	Suppressed
	Rearward	N/A	Suppressed	Not Tested
Unbelted Forward Facing	Forward 23*	N/A	Not Tested	Suppressed
	Middle	N/A	Not Tested	Suppressed
	Rearward	N/A	Not Tested	Suppressed

Successful Unbelted 5<sup>th</sup> percentile Female Dummy Reactivation was performed with the seat in the Middle position. (SN506)

\* The CRS would not fit in this Forward Seat Slide position. If there is a number in the Seat Slide column, it indicates the fore-aft position with respect to the foremost position. (1 = Full Forward; 53 = Full Rearward; 53 Total Seat Slide Detents )



## DATA SHEET 15 SUMMARY

Suppression Test Using 12-month-old CRABI Dummy (Part 572, Subpart R)  
Section B Rear Facing CRS

NHTSA No.:	C50500	TEST DATE:	1-20-05
LABORATORY:	MGA	TECHNICIANS:	JL
DUMMY TYPE:	12 Month Old	DUMMY SERIAL NO.:	082

CHILD RESTRAINT NAME:	Graco
CHILD RESTRAINT MODEL:	Infant 8457
DATE OF MANUFACTURE:	8-31-2000

Base: ☒ On ☐ Off ☐ N/A-Restraint does not have a removable base

Manufacturer's design seat back angle: 23.5°

Tested seat back angle: 23.5°

Manufacturer's specified anchorage position: Top

Tested anchorage position: Top

Blanket and visor combinations were not used

### Test Summary

Seat Belt	Seat Slide	Cinch Load (N)	Handle Down	Handle Up
Belted Rear Facing	Forward 15 *	133	Not Tested	Suppressed
	Middle	130	Not Tested	Suppressed
	Rearward	133	Suppressed	Not Tested
Unbelted Rear Facing	Forward 22 *	N/A	Not Tested	Suppressed
	Middle	N/A	Not Tested	Suppressed
	Rearward	N/A	Suppressed	Not Tested
Unbelted Forward Facing	Forward 12 *	N/A	Not Tested	Suppressed
	Middle	N/A	Not Tested	Suppressed
	Rearward	N/A	Not Tested	Suppressed

\* The CRS would not fit in this Forward Seat Slide position. If there is a number in the Seat Slide column, it indicates the fore-aft position with respect to the foremost position. (1 = Full Forward; 53 = Full Rearward; 53 Total Seat Slide Detents)

## DATA SHEET 15 SUMMARY

Suppression Test Using 12-month-old CRABI Dummy (Part 572, Subpart R)  
Section B Rear Facing CRS

NHTSA No.:	C50500	TEST DATE:	1-20-05
LABORATORY:	MGA	TECHNICIANS:	JL
DUMMY TYPE:	12 Month Old	DUMMY SERIAL NO.:	082

CHILD RESTRAINT NAME:	Graco
CHILD RESTRAINT MODEL:	Infant 8457
DATE OF MANUFACTURE:	8-31-2000

Base: ☐ On ☒ Off ☐ N/A-Restraint does not have a removable base

Manufacturer's design seat back angle: 23.5°

Tested seat back angle: 23.5°

Manufacturer's specified anchorage position: Top

Tested anchorage position: Top

Blanket and visor combinations were not used

### Test Summary

Seat Belt	Seat Slide	Cinch Load (N)	Handle Down	Handle Up
Belted Rear Facing	Forward 24*	130	Not Tested	Suppressed
	Middle	131	Not Tested	Suppressed
	Rearward	127	Suppressed	Not Tested
Unbelted Rear Facing	Forward	N/A	Not Tested	Won't Fit
	Middle	N/A	Not Tested	Suppressed
	Rearward	N/A	Suppressed	Not Tested
Unbelted Forward Facing	Forward 13*	N/A	Not Tested	Suppressed
	Middle	N/A	Not Tested	Suppressed
	Rearward	N/A	Not Tested	Suppressed

Successful Unbelted 5<sup>th</sup> percentile Female Dummy Reactivation was performed with the seat in the Middle position. (SN506)

\* The CRS would not fit in this Forward Seat Slide position. If there is a number in the Seat Slide column, it indicates the fore-aft position with respect to the foremost position. (1 = Full Forward; 53 = Full Rearward; 53 Total Seat Slide Detents)

## DATA SHEET 15 SUMMARY

Suppression Test Using 12-month-old CRABI Dummy (Part 572, Subpart R)  
Section C Forward Facing Convertible CRS

NHTSA No.:	C50500	TEST DATE:	1-20-05
LABORATORY:	MGA	TECHNICIANS:	JL
DUMMY TYPE:	12 Month Old	DUMMY SERIAL NO.:	082

CHILD RESTRAINT NAME:	Britax
CHILD RESTRAINT MODEL:	Roundabout 161
DATE OF MANUFACTURE:	7-21-2000

Base: \_\_On \_\_Off X N/A-Restraint does not have a removable base

Manufacturer's design seat back angle: 23.5°

Tested seat back angle: 23.5°

Manufacturer's specified anchorage position: Top

Tested anchorage position: Top

Blanket combinations were not used

### Test Summary

Seat Belt	Seat Slide	Cinch Load (N)	No Blanket
Belted Forward Facing	Forward	130	Suppressed
	Middle	127	Suppressed
	Rearward	131	Suppressed
Unbelted Forward Facing	Forward	N/A	Suppressed
	Middle	N/A	Suppressed
	Rearward	N/A	Suppressed
Belted Rear Facing	Forward	132	Suppressed
	Middle	131	Suppressed
	Rearward	132	Suppressed
Unbelted Rear Facing	Forward 5*	N/A	Suppressed
	Middle	N/A	Suppressed
	Rearward	N/A	Suppressed

Successful Unbelted 5<sup>th</sup> percentile Female Dummy Reactivation was performed with the seat in the Middle position. (SN506)

\* The CRS would not fit in this Forward Seat Slide position. If there is a number in the Seat Slide column, it indicates the fore-aft position with respect to the foremost position. (1 = Full Forward; 53 = Full Rearward; 53 Total Seat Slide Detents)

### DATA SHEET 15 SUMMARY

Suppression Test Using 12-month-old CRABI Dummy (Part 572, Subpart R)  
Section C Forward Facing Convertible CRS

NHTSA No.:	C50500	TEST DATE:	1-20-05
LABORATORY:	MGA	TECHNICIANS:	JL
DUMMY TYPE:	12 Month Old	DUMMY SERIAL NO.:	082

CHILD RESTRAINT NAME:	Century
CHILD RESTRAINT MODEL:	Encore 4612
DATE OF MANUFACTURE:	8-16-2000

Base: ☐ On ☐ Off ☒ N/A-Constraint does not have a removable base

Manufacturer's design seat back angle: 23.5°

Tested seat back angle: 23.5°

Manufacturer's specified anchorage position: Top

Tested anchorage position: Top

Blanket combinations were not used

#### Test Summary

Seat Belt	Seat Slide	Cinch Load (N)	No Blanket
Belted Forward Facing	Forward	128	Suppressed
	Middle	130	Suppressed
	Rearward	128	Suppressed
Unbelted Forward Facing	Forward	N/A	Suppressed
	Middle	N/A	Suppressed
	Rearward	N/A	Suppressed
Belted Rear Facing	Forward 8 *	130	Suppressed
	Middle	127	Suppressed
	Rearward	127	Suppressed
Unbelted Rear Facing	Forward 12 *	N/A	Suppressed
	Middle	N/A	Suppressed
	Rearward	N/A	Suppressed

Successful Unbelted 5<sup>th</sup> percentile Female Dummy Reactivation was performed with the seat in the Middle position. (SN506)

\* The CRS would not fit in this Forward Seat Slide position. If there is a number in the Seat Slide column, it indicates the fore-aft position with respect to the foremost position. (1 = Full Forward; 53 = Full Rearward; 53 Total Seat Slide Detents)

## DATA SHEET 15 SUMMARY

Suppression Test Using 12-month-old CRABI Dummy (Part 572, Subpart R)  
Section C Forward Facing Convertible CRS

NHTSA No.:	C50500	TEST DATE:	1-20-05
LABORATORY:	MGA	TECHNICIANS:	JL
DUMMY TYPE:	12 Month Old	DUMMY SERIAL NO.:	082

CHILD RESTRAINT NAME:	Evenflo
CHILD RESTRAINT MODEL:	Medallion 254
DATE OF MANUFACTURE:	6-1-2000

Base: \_\_On \_\_Off X N/A-Restraint does not have a removable base

Manufacturer's design seat back angle: 23.5°

Tested seat back angle: 23.5°

Manufacturer's specified anchorage position: Top

Tested anchorage position: Top

Blanket combinations were not used

### Test Summary

Seat Belt	Seat Slide	Cinch Load (N)	No Blanket
Belted Forward Facing	Forward	130	Suppressed
	Middle	130	Suppressed
	Rearward	127	Suppressed
Unbelted Forward Facing	Forward	N/A	Suppressed
	Middle	N/A	Suppressed
	Rearward	N/A	Suppressed
Belted Rear Facing	Forward 4*	133	Suppressed
	Middle	129	Suppressed
	Rearward	129	Suppressed
Unbelted Rear Facing	Forward 11*	N/A	Suppressed
	Middle	N/A	Suppressed
	Rearward	N/A	Suppressed

Successful Unbelted 5<sup>th</sup> percentile Female Dummy Reactivation was performed with the seat in the Forward position. (SN506)

\* The CRS would not fit in this Forward Seat Slide position. If there is a number in the Seat Slide column, it indicates the fore-aft position with respect to the foremost position. (1 = Full Forward; 53 = Full Rearward; 53 Total Seat Slide Detents)

## DATA SHEET 16 SUMMARY

### Suppression Test Using Newborn Infant Dummy (Part 572, Subpart K) Section A Car Bed

NHTSA No.:	C50500	TEST DATE:	1-20-05
LABORATORY:	MGA	TECHNICIANS:	JL
DUMMY TYPE:	Newborn Infant	DUMMY SERIAL NO.:	003

CAR BED NAME:	Cosco
CAR BED MODEL:	Dream Ride 02-719
DATE OF MANUFACTURE:	6-16-2000

Base: \_\_On \_\_Off X N/A-Constraint does not have a removable base  
(A car bed with a removable base shall be treated as two separate models, i.e. this form and test procedure will be completed with the base on and then repeated on a new form with the base off.

Manufacturer's design seat back angle: 23.5°  
Tested seat back angle: 23.5°  
Manufacturer's specified anchorage position: Top  
Tested anchorage position: Top

Blanket and visor combinations were not used.

### Test Summary

Seat Belt	Seat Slide	Handle Down	Handle Up
Belted	Forward	Won't Fit	Won't Fit
	Middle	Suppressed	Suppressed
	Rearward	Won't Fit	Won't Fit

Successful Unbelted 5<sup>th</sup> percentile Female Dummy Reactivation was performed with the seat in the Middle position. (SN506)

## DATA SHEET 23 SUMMARY

Low Risk Deployment Tests Using an Unbelted 3-Year-Old  
Dummy (Part 572, Subpart P) (S22)  
Position 1 – Chest On Instrument Panel (S22.4.2)

NHTSA No.:	C50500	TEST DATE:	3-10-05
LABORATORY:	MGA	TECHNICIANS:	AH/BR
DUMMY TYPE:	3-Year-Old	DUMMY SERIAL NO.:	032

Manufacturer's design seat back angle: 23.5°  
 Tested seat back angle: 23.5°  
 Tested seat position: Full Aft

Height from floor pan to heel: 149 mm  
 Thorax cavity angle: 0.1°  
 Thigh angle: 42.6°  
 Point 1 height: 1 mm Above AB Module

### Air Bag Deployment Timing

Stage No.	Firing time (ms)	Recorded firing time (ms)
1	0.0	0.0
2	200.0	200.1

### 3-Year-Old SN 032 Position 1 (Chest on Instrument Panel) 3-10-05

Injury Criteria	Max. Allowable Injury Assessment Values	Measured Value
HIC15	570	14
Peak Nij (Nte)	1.0	0.4
Time (ms)	NA	62.9
Peak Nij (Ntf)	1.0	0.2
Time (ms)	NA	13.2
Peak Nij (Nce)	1.0	0.1
Time (ms)	NA	240.0
Peak Nij (Ncf)	1.0	0.0
Time (ms)	NA	0.4
Neck Tension	1130 N	454
Neck Compression	1380 N	48
Chest g	55 g	9
Chest Displacement	34 mm	14

Calculated on data recorded for 100 ms after the initial deployment of the air bag. (S4.11(b))

## DATA SHEET 24 SUMMARY

Low Risk Deployment Tests Using an Unbelted 3-Year-Old  
Dummy (Part 572, Subpart P) (S22)  
Position 2 – Head On Instrument Panel (S22.4.3)

NHTSA No.:	C50500	TEST DATE:	4-20-05
LABORATORY:	MGA	TECHNICIANS:	AH/BR
DUMMY TYPE:	3-Year-Old	DUMMY SERIAL NO.:	032

Manufacturer's design seat back angle: 23.5°  
Tested seat back angle: 23.5°  
Tested seat position: Full Forward

Thorax cavity angle: 0.1°  
Thigh angle: 8.4°  
Point 1 height: 186 mm Below AB Center

### Air Bag Deployment Timing

Stage No.	Firing time (ms)	Recorded firing time (ms)
1	0.0	0.0
2	200.0	200.0

### 3-Year-Old SN 032 Position 2 (Head on Instrument Panel) 4-20-05

Injury Criteria	Max. Allowable Injury Assessment Values	Measured Value
HIC15	570	20
Peak Nij (Nte)	1.0	0.0
Time (ms)	NA	0.8
Peak Nij (Ntf)	1.0	0.1
Time (ms)	NA	15.1
Peak Nij (Nce)	1.0	0.1
Time (ms)	NA	39.9
Peak Nij (Ncf)	1.0	0.5
Time (ms)	NA	110.0
Neck Tension	1130 N	4
Neck Compression	1380 N	560
Chest g	55 g	10
Chest Displacement	34 mm	1

Calculated on data recorded for 100 ms after the initial deployment of the air bag. (S4.11(b))



## DATA SHEET 27 TRIAL 1 SUMMARY

Low Risk Deployment Tests Using an Unbelted 5<sup>th</sup> Percentile Female  
Dummy (Part 572, Subpart O) (S26)  
Position 1 – Chin On Module (S26.2)

NHTSA No.:	C50500	TEST DATE:	3-10-05
LABORATORY:	MGA	TECHNICIANS:	AH/BR
DUMMY TYPE:	5 <sup>th</sup> Percentile Female	DUMMY SERIAL NO.:	506

Manufacturer's design seat back angle: 23.5°  
 Tested seat back angle: 23.5°  
 Tested seat position: Full Aft

Tested steering wheel angle: 21.5°  
 Thorax cavity angle: 27.3°  
 Bottom of chin height: 4 mm Above Module

### Air Bag Deployment Timing

Stage No.	Firing time (ms)	Recorded firing time (ms)
1	0.0	0.0
2	200.0	200.0

### 5<sup>th</sup> Percentile Female SN 516 Position 1 (Chin On Module) 3-10-05

Injury Criteria	Max. Allowable Injury Assessment Values	Measured Value
HIC15	700	67
Peak Nij (Nte)	1.0	1.0 (1.006)
Time (ms)	NA	27.1
Peak Nij (Ntf)	1.0	0.3
Time (ms)	NA	40.5
Peak Nij (Nce)	1.0	0.9
Time (ms)	NA	137.6
Peak Nij (Ncf)	1.0	0.1
Time (ms)	NA	237.8
Neck Tension	2070 N	1411
Neck Compression	2520 N	846
Chest g	60 g	14
Chest Displacement	52 mm	14
Left Femur	6805 N	199
Right Femur	6805 N	227

Calculated on data recorded for 125 ms after the initiation of the final stage of air bag deployment  
 designed to deploy in any full frontal rigid barrier crash up to 26 km/h. (S4.11(d))  
 Second stage fire time of 200 ms; Injuries calculated on 0 ms to 325 ms

## DATA SHEET 27 TRIAL 2 SUMMARY

Low Risk Deployment Tests Using an Unbelted 5<sup>th</sup> Percentile Female  
Dummy (Part 572, Subpart O) (S26)  
Position 1 - Chin On Module (S26.2)

NHTSA No.:	C50500	TEST DATE:	4-5-05
LABORATORY:	MGA	TECHNICIANS:	AH/BR
DUMMY TYPE:	5 <sup>th</sup> Percentile Female	DUMMY SERIAL NO.:	511

Manufacturer's design seat back angle: 23.5°  
 Tested seat back angle: 23.5°  
 Tested seat position: Full Aft

Tested steering wheel angle: 18.5°  
 (The steering wheel would only adjust to 18.5° due to the previous Position 2 Deployment) \*  
 Thorax cavity angle: 24.6°  
 Bottom of chin height: 1 mm Above Module

### Air Bag Deployment Timing

Stage No.	Firing time (ms)	Recorded firing time (ms)
1	0.0	0.0
2	200.0	200.0

### 5<sup>th</sup> Percentile Female SN 511 Position 1 (Chin On Module) 4-05-05

Injury Criteria	Max. Allowable Injury Assessment Values	Measured Value
HIC15	700	65
Peak Nij (Nte)	1.0	1.1 (1.074)
Time (ms)	NA	26.2
Peak Nij (Ntf)	1.0	0.1
Time (ms)	NA	4.9
Peak Nij (Nce)	1.0	0.9
Time (ms)	NA	142.3
Peak Nij (Ncf)	1.0	0.1
Time (ms)	NA	254.3
Neck Tension	2070 N	1458
Neck Compression	2520 N	1053
Chest g	60 g	17
Chest Displacement	52 mm	14
Left Femur	6805 N	193
Right Femur	6805 N	375

Calculated on data recorded for 125 ms after the initiation of the final stage of air bag deployment designed to deploy in any full frontal rigid barrier crash up to 26 km/h. (S4.11(d))  
 Second stage fire time of 200 ms; Injuries calculated on 0 ms to 325 ms

\* The steering column and steering wheel were not replaced for trial 2. The 3/10/05 position 1 test (trial 1) and the 4/5/05 position 2 test were performed with this column and wheel prior to the 4/5/05 (trial 2) position 1 test.

### DATA SHEET 27 TRIAL 3 SUMMARY

Low Risk Deployment Tests Using an Unbelted 5<sup>th</sup> Percentile Female  
Dummy (Part 572, Subpart O) (S26)  
Position 1 - Chin On Module (S26.2)

NHTSA No.:	C50500	TEST DATE:	4-20-05
LABORATORY:	MGA	TECHNICIANS:	AH/BR
DUMMY TYPE:	5 <sup>th</sup> Percentile Female	DUMMY SERIAL NO.:	505

Manufacturer's design seat back angle: 23.5°  
Tested seat back angle: 23.5°  
Tested seat position: Full Aft

Tested steering wheel angle: 21.1°  
Thorax cavity angle: 27.3°  
Bottom of chin height: 2 mm Above Module

#### Air Bag Deployment Timing

Stage No.	Firing time (ms)	Recorded firing time (ms)
1	0.0	0.0
2	200.0	200.0

#### 5<sup>th</sup> Percentile Female SN 505 Position 1 (Chin On Module) 4-20-05

Injury Criteria	Max. Allowable Injury Assessment Values	Measured Value
HIC15	700	55
Peak Nij (Nte)	1.0	1.2 (1.151)
Time (ms)	NA	27.6
Peak Nij (Ntf)	1.0	0.2
Time (ms)	NA	39.9
Peak Nij (Nce)	1.0	0.5
Time (ms)	NA	145.7
Peak Nij (Ncf)	1.0	0.2
Time (ms)	NA	181.3
Neck Tension	2070 N	1434
Neck Compression	2520 N	430
Chest g	60 g	16
Chest Displacement	52 mm	14
Left Femur	6805 N	1042
Right Femur	6805 N	517

Calculated on data recorded for 125 ms after the initiation of the final stage of air bag deployment designed to deploy in any full frontal rigid barrier crash up to 26 km/h. (S4.11(d))  
Second stage fire time of 200 ms; Injuries calculated on 0 ms to 325 ms

The steering column and steering wheel were replaced prior to this test.

## DATA SHEET 27 TRIAL 4 SUMMARY

Low Risk Deployment Tests Using an Unbelted 5<sup>th</sup> Percentile Female  
Dummy (Part 572, Subpart O) (S26)  
Position 1 - Chin On Module (S26.2)

NHTSA No.:	C50500	TEST DATE:	7-07-05
LABORATORY:	MGA	TECHNICIANS:	AH/BR
DUMMY TYPE:	5 <sup>th</sup> Percentile Female	DUMMY SERIAL NO.:	505

Manufacturer's design seat back angle: 23.5°  
Tested seat back angle: 23.5°  
Tested seat position: Full Aft

Tested steering wheel angle: 21.0°  
Thorax cavity angle: 27.2°  
Bottom of chin height: 1 mm Above Module

### Air Bag Deployment Timing

Stage No.	Firing time (ms)	Recorded firing time (ms)
1	0.0	0.0
2	200.0	200.3

### 5<sup>th</sup> Percentile Female SN 505 Position 1 (Chin On Module) 7-07-05

Injury Criteria	Max. Allowable Injury Assessment Values	Measured Value
HIC15	700	66
Peak Nij (Nte)	1.0	1.1 (1.118)
Time (ms)	NA	28.8
Peak Nij (Ntf)	1.0	0.0
Time (ms)	NA	282.0
Peak Nij (Nce)	1.0	0.7
Time (ms)	NA	142.5
Peak Nij (Ncf)	1.0	0.2
Time (ms)	NA	180.5
Neck Tension	2070 N	1344
Neck Compression	2520 N	549
Chest g	60 g	11
Chest Displacement	52 mm	13
Left Femur	6805 N	122
Right Femur	6805 N	334

Calculated on data recorded for 125 ms after the initiation of the final stage of air bag deployment designed to deploy in any full frontal rigid barrier crash up to 26 km/h. (S4.11(d))  
Second stage fire time of 200 ms; Injuries calculated on 0 ms to 325 ms

The steering column and steering wheel were replaced prior to this test.

## DATA SHEET 27 TRIAL 5 SUMMARY

Low Risk Deployment Tests Using an Unbelted 5<sup>th</sup> Percentile Female  
Dummy (Part 572, Subpart O) (S26)  
Position 1 - Chin On Module (S26.2)

NHTSA No.:	C50500	TEST DATE:	7-07-05
LABORATORY:	MGA	TECHNICIANS:	AH/BR
DUMMY TYPE:	5 <sup>th</sup> Percentile Female	DUMMY SERIAL NO.:	506

Manufacturer's design seat back angle: 23.5°  
Tested seat back angle: 23.5°  
Tested seat position: Full Aft

Tested steering wheel angle: 21.1°  
Thorax cavity angle: 27.4°  
Bottom of chin height: 2 mm Below Module

### Air Bag Deployment Timing

Stage No.	Firing time (ms)	Recorded firing time (ms)
1	0.0	0.0
2	200.0	200.3

### 5<sup>th</sup> Percentile Female SN 506 Position 1 (Chin On Module) 7-07-05

Injury Criteria	Max. Allowable Injury Assessment Values	Measured Value
HIC15	700	60
Peak Nij (Nte)	1.0	0.8
Time (ms)	NA	26.2
Peak Nij (Ntf)	1.0	0.3
Time (ms)	NA	35.0
Peak Nij (Nce)	1.0	0.6
Time (ms)	NA	143.4
Peak Nij (Ncf)	1.0	0.2
Time (ms)	NA	181.1
Neck Tension	2070 N	1231
Neck Compression	2520 N	508
Chest g	60 g	13
Chest Displacement	52 mm	13
Left Femur	6805 N	214
Right Femur	6805 N	254

Calculated on data recorded for 125 ms after the initiation of the final stage of air bag deployment designed to deploy in any full frontal rigid barrier crash up to 26 km/h. (S4.11(d))  
Second stage fire time of 200 ms; Injuries calculated on 0 ms to 325 ms

The steering column and steering wheel were replaced prior to this test.

## DATA SHEET 27 TRIAL 6 SUMMARY

Low Risk Deployment Tests Using an Unbelted 5<sup>th</sup> Percentile Female  
Dummy (Part 572, Subpart O) (S26)  
Position 1 - Chin On Module (S26.2)

NHTSA No.:	C50500	TEST DATE:	7-07-05
LABORATORY:	MGA	TECHNICIANS:	AH/BR
DUMMY TYPE:	5 <sup>th</sup> Percentile Female	DUMMY SERIAL NO.:	510

Manufacturer's design seat back angle: 23.5°  
Tested seat back angle: 23.5°  
Tested seat position: Full Aft

Tested steering wheel angle: 21.0°  
Thorax cavity angle: 27.2°  
Bottom of chin height: 1 mm Above Module

### Air Bag Deployment Timing

Stage No.	Firing time (ms)	Recorded firing time (ms)
1	0.0	0.0
2	200.0	200.0

### 5<sup>th</sup> Percentile Female SN 510 Position 1 (Chin On Module) 7-07-05

Injury Criteria	Max. Allowable Injury Assessment Values	Measured Value
HIC15	700	64
Peak Nij (Nte)	1.0	0.8
Time (ms)	NA	28.2
Peak Nij (Ntf)	1.0	0.3
Time (ms)	NA	39.1
Peak Nij (Nce)	1.0	0.6
Time (ms)	NA	141.7
Peak Nij (Ncf)	1.0	0.2
Time (ms)	NA	179.2
Neck Tension	2070 N	1195
Neck Compression	2520 N	576
Chest g	60 g	13
Chest Displacement	52 mm	12
Left Femur	6805 N	571
Right Femur	6805 N	419

Calculated on data recorded for 125 ms after the initiation of the final stage of air bag deployment designed to deploy in any full frontal rigid barrier crash up to 26 km/h. (S4.11(d))  
Second stage fire time of 200 ms; Injuries calculated on 0 ms to 325 ms

The steering column and steering wheel were replaced prior to this test.

## DATA SHEET 27 TRIAL 7 SUMMARY

Low Risk Deployment Tests Using an Unbelted 5<sup>th</sup> Percentile Female  
Dummy (Part 572, Subpart O) (S26)  
Position 1 - Chin On Module (S26.2)

NHTSA No.:	C50500	TEST DATE:	9-23-05
LABORATORY:	MGA	TECHNICIANS:	WD/BR
DUMMY TYPE:	5 <sup>th</sup> Percentile Female	DUMMY SERIAL NO.:	507

Manufacturer's design seat back angle: 23.5°  
Tested seat back angle: 23.5°  
Tested seat position: Full Aft

Tested steering wheel angle: 21.0°  
Thorax cavity angle: 26.9°  
Bottom of chin height: 1 mm Above Module

### Air Bag Deployment Timing

Stage No.	Firing time (ms)	Recorded firing time (ms)
1	0.0	0.0
2	200.0	200.0

### 5<sup>th</sup> Percentile Female SN 507 Position 1 (Chin On Module) 9-23-05

Injury Criteria	Max. Allowable Injury Assessment Values	Measured Value
HIC15	700	47
Peak Nij (Nte)	1.0	0.9 (0.888)
Time (ms)	NA	30.1
Peak Nij (Ntf)	1.0	0.2
Time (ms)	NA	43.3
Peak Nij (Nce)	1.0	0.6
Time (ms)	NA	150.8
Peak Nij (Ncf)	1.0	0.2
Time (ms)	NA	178.9
Neck Tension	2070 N	1177
Neck Compression	2520 N	644
Chest g	60 g	14
Chest Displacement	52 mm	12
Left Femur	6805 N	766
Right Femur	6805 N	1191

Calculated on data recorded for 125 ms after the initiation of the final stage of air bag deployment designed to deploy in any full frontal rigid barrier crash up to 26 km/h. (S4.11(d))  
Second stage fire time of 200 ms; Injuries calculated on 0 ms to 325 ms

The steering column and steering wheel were replaced prior to this test.  
The Mercedes Benz procedures for taping the dummy and positioning the legs were used

## DATA SHEET 27 TRIAL 8 SUMMARY

Low Risk Deployment Tests Using an Unbelted 5<sup>th</sup> Percentile Female  
Dummy (Part 572, Subpart O) (S26)  
Position 1 - Chin On Module (S26.2)

NHTSA No.:	C50500	TEST DATE:	9-23-05
LABORATORY:	MGA	TECHNICIANS:	WD/BR
DUMMY TYPE:	5 <sup>th</sup> Percentile Female	DUMMY SERIAL NO.:	510

Manufacturer's design seat back angle: 23.5°  
Tested seat back angle: 23.5°  
Tested seat position: Full Aft

Tested steering wheel angle: 21.0°  
Thorax cavity angle: 26.8°  
Bottom of chin height: 1 mm Below Module

### Air Bag Deployment Timing

Stage No.	Firing time (ms)	Recorded firing time (ms)
1	0.0	0.0
2	200.0	200.0

### 5<sup>th</sup> Percentile Female SN 510 Position 1 (Chin On Module) 9-23-05

Injury Criteria	Max. Allowable Injury Assessment Values	Measured Value
HIC15	700	98
Peak Nij (Nte)	1.0	0.9 (0.891)
Time (ms)	NA	26.6
Peak Nij (Ntf)	1.0	0.1
Time (ms)	NA	240.7
Peak Nij (Nce)	1.0	1.1 (1.084)
Time (ms)	NA	134.5
Peak Nij (Ncf)	1.0	0.1
Time (ms)	NA	250.6
Neck Tension	2070 N	1557
Neck Compression	2520 N	1125
Chest g	60 g	16
Chest Displacement	52 mm	13
Left Femur	6805 N	213
Right Femur	6805 N	198

Calculated on data recorded for 125 ms after the initiation of the final stage of air bag deployment designed to deploy in any full frontal rigid barrier crash up to 26 km/h. (S4.11(d))  
Second stage fire time of 200 ms; Injuries calculated on 0 ms to 325 ms

The steering column and steering wheel were replaced prior to this test.  
The Mercedes Benz procedures for taping the dummy and positioning the legs were used



## DATA SHEET 27 TRIAL 9 SUMMARY

Low Risk Deployment Tests Using an Unbelted 5<sup>th</sup> Percentile Female  
Dummy (Part 572, Subpart O) (S26)  
Position 1 - Chin On Module (S26.2)

NHTSA No.:	C50500	TEST DATE:	9-23-05
LABORATORY:	MGA	TECHNICIANS:	WD/BR
DUMMY TYPE:	5 <sup>th</sup> Percentile Female	DUMMY SERIAL NO.:	505

Manufacturer's design seat back angle: 23.5°  
Tested seat back angle: 23.5°  
Tested seat position: Full Aft

Tested steering wheel angle: 21.0°  
Thorax cavity angle: 26.6°  
Bottom of chin height: 1 mm Above Module

### Air Bag Deployment Timing

Stage No.	Firing time (ms)	Recorded firing time (ms)
1	0.0	0.0
2	200.0	200.0

### 5<sup>th</sup> Percentile Female SN 505 Position 1 (Chin On Module) 9-23-05

Injury Criteria	Max. Allowable Injury Assessment Values	Measured Value
HIC15	700	104
Peak Nij (Nte)	1.0	1.0 (1.038)
Time (ms)	NA	27.0
Peak Nij (Ntf)	1.0	0.1
Time (ms)	NA	230.5
Peak Nij (Nce)	1.0	1.0 (1.016)
Time (ms)	NA	133.9
Peak Nij (Ncf)	1.0	0.1
Time (ms)	NA	252.1
Neck Tension	2070 N	1478
Neck Compression	2520 N	1094
Chest g	60 g	13
Chest Displacement	52 mm	12
Left Femur	6805 N	275
Right Femur	6805 N	231

Calculated on data recorded for 125 ms after the initiation of the final stage of air bag deployment designed to deploy in any full frontal rigid barrier crash up to 26 km/h. (S4.11(d))  
Second stage fire time of 200 ms; Injuries calculated on 0 ms to 325 ms

The steering column and steering wheel were replaced prior to this test.  
The Mercedes Benz procedures for taping the dummy and positioning the legs were used

## DATA SHEET 27 TRIAL 10 SUMMARY

Low Risk Deployment Tests Using an Unbelted 5<sup>th</sup> Percentile Female  
Dummy (Part 572, Subpart O) (S26)  
Position 1 - Chin On Module (S26.2)

NHTSA No.:	C50500	TEST DATE:	9-23-05
LABORATORY:	MGA	TECHNICIANS:	WD/BR
DUMMY TYPE:	5 <sup>th</sup> Percentile Female	DUMMY SERIAL NO.:	516

Manufacturer's design seat back angle: 23.5°  
Tested seat back angle: 23.5°  
Tested seat position: Full Aft

Tested steering wheel angle: 21.0°  
Thorax cavity angle: 26.8°  
Chin Point height: 2 mm Above Module

### Air Bag Deployment Timing

Stage No.	Firing time (ms)	Recorded firing time (ms)
1	0.0	0.0
2	200.0	200.0

### 5<sup>th</sup> Percentile Female SN 516 Position 1 (Chin On Module)9-23-05

Injury Criteria	Max. Allowable Injury Assessment Values	Measured Value
HIC15	700	77
Peak Nij (Nte)	1.0	1.1 (1.075)
Time (ms)	NA	27.8
Peak Nij (Ntf)	1.0	0.3
Time (ms)	NA	42.2
Peak Nij (Nce)	1.0	1.0 (0.961)
Time (ms)	NA	136.5
Peak Nij (Ncf)	1.0	0.1
Time (ms)	NA	174.6
Neck Tension	2070 N	1426
Neck Compression	2520 N	906
Chest g	60 g	14
Chest Displacement	52 mm	15
Left Femur	6805 N	289
Right Femur	6805 N	254

Calculated on data recorded for 125 ms after the initiation of the final stage of air bag deployment designed to deploy in any full frontal rigid barrier crash up to 26 km/h. (S4.11(d))  
Second stage fire time of 200 ms; Injuries calculated on 0 ms to 325 ms

The steering column and steering wheel were replaced prior to this test.  
The Mercedes Benz procedures for taping the dummy and positioning the legs were used

## DATA SHEET 27 TRIAL 11 SUMMARY

Low Risk Deployment Tests Using an Unbelted 5<sup>th</sup> Percentile Female  
Dummy (Part 572, Subpart O) (S26)  
Position 1 - Chin On Module (S26.2)

NHTSA No.:	C50500	TEST DATE:	5-10-06
LABORATORY:	MGA	TECHNICIANS:	JH/BR
DUMMY TYPE:	5 <sup>th</sup> Percentile Female	DUMMY SERIAL NO.:	075

Manufacturer's design seat back angle: 23.5°  
 Tested seat back angle: 23.5°  
 Tested seat position: Full Aft

Tested steering wheel angle: 21.3°  
 Thorax cavity angle: 27.2°  
 Chin Point height: 1 mm Above Module

### Air Bag Deployment Timing

Stage No.	Firing time (ms)	Recorded firing time (ms)
1	0.0	0.0
2	200.0	200.2

### 5<sup>th</sup> Percentile Female SN 075 Position 1 (Chin On Module) 5-10-06

Injury Criteria	Max. Allowable Injury Assessment Values	Measured Value
HIC15	700	14
Peak Nij (Nte)	1.0	0.6
Time (ms)	NA	33.4
Peak Nij (Ntf)	1.0	0.1
Time (ms)	NA	5.3
Peak Nij (Nce)	1.0	0.3
Time (ms)	NA	177.7
Peak Nij (Ncf)	1.0	0.1
Time (ms)	NA	225.4
Neck Tension	2070 N	803
Neck Compression	2520 N	352
Chest g	60 g	11
Chest Displacement	52 mm	8
Left Femur	6805 N	86
Right Femur	6805 N	109

Calculated on data recorded for 125 ms after the initiation of the final stage of air bag deployment  
 designed to deploy in any full frontal rigid barrier crash up to 26 km/h. (S4.11(d))  
 Second stage fire time of 200 ms; Injuries calculated on 0 ms to 325 ms

This was a test of the recall remedy. The steering column and steering wheel were replaced prior to this test. The Mercedes Benz procedure for positioning the legs was used for this test and taping of the dummy was modified.

## DATA SHEET 27 TRIAL 12 SUMMARY (4 Spoke Steering Wheel)

Low Risk Deployment Tests Using an Unbelted 5<sup>th</sup> Percentile Female  
Dummy (Part 572, Subpart O) (S26)  
Position 1 - Chin On Module (S26.2)

NHTSA No.:	C50500	TEST DATE:	6-7-06
LABORATORY:	MGA	TECHNICIANS:	JH/BR
DUMMY TYPE:	5 <sup>th</sup> Percentile Female	DUMMY SERIAL NO.:	075

Manufacturer's design seat back angle: 23.5°  
Tested seat back angle: 23.5°  
Tested seat position: Full Aft

Tested steering wheel angle: 24.0°  
(The steering wheel would only adjust to 24.0° due to the previous Position 1 Deployment)  
Thorax cavity angle: 26.8°  
Chin Point height: 2 mm Above Module

### Air Bag Deployment Timing

Stage No.	Firing time (ms)	Recorded firing time (ms)
1	0.0	0.0
2	200.0	200.0

### 5<sup>th</sup> Percentile Female SN 075 Position 1 (Chin On Module) 6-7-06

Injury Criteria	Max. Allowable Injury Assessment Values	Measured Value
HIC15	700	100
Peak Nij (Nte)	1.0	0.5
Time (ms)	NA	28.3
Peak Nij (Ntf)	1.0	0.3
Time (ms)	NA	37.0
Peak Nij (Nce)	1.0	1.0 (0.95)
Time (ms)	NA	131.7
Peak Nij (Ncf)	1.0	0.1
Time (ms)	NA	242.3
Neck Tension	2070 N	1318
Neck Compression	2520 N	817
Chest g	60 g	21
Chest Displacement	52 mm	14
Left Femur	6805 N	119
Right Femur	6805 N	172

Calculated on data recorded for 125 ms after the initiation of the final stage of air bag deployment designed to deploy in any full frontal rigid barrier crash up to 26 km/h. (S4.11(d))  
Second stage fire time of 200 ms; Injuries calculated on 0 ms to 325 ms

This was a test of the 4-spoke steering wheel. The steering column and steering wheel were replaced prior to this test. The Mercedes Benz procedure for positioning the legs was used for this test and no tape was needed to hold the dummy in place.

## DATA SHEET 28 SUMMARY

Low Risk Deployment Tests Using an Unbelted 5<sup>th</sup> Percentile Female Dummy (Part 572, Subpart O) (S26) Position 2 - Chin On Rim (S26.3)

NHTSA No.:	C50500	TEST DATE:	4-5-05
LABORATORY:	MGA	TECHNICIANS:	AH/BR
DUMMY TYPE:	5 <sup>th</sup> Percentile Female	DUMMY SERIAL NO.:	511

Manufacturer's design seat back angle: 23.5°  
 Tested seat back angle: 23.5°  
 Tested seat position: Full Aft

Tested steering wheel angle: 17.3°  
 Thorax cavity angle: 23.3°  
 Chin Point height: 10 mm Below Steering Wheel Target

Note:

The chin on rim steering wheel target is 10 mm below the highest point on the steering wheel

\*The dummy contacted the windshield with the steering wheel at mid position. The steering controls were adjusted to lower the upper steering wheel rim the necessary amount to bring the Chin Point coincident with the upper steering wheel rim. The rear thorax cavity was adjusted along with the steering wheel angle.

### Air Bag Deployment Timing

Stage No.	Firing time (ms)	Recorded firing time (ms)
1	0.0	0.0
2	200.0	200.0

### 5<sup>th</sup> Percentile Female SN 511 Position 2 (Chin On Rim) 4-5-05

Injury Criteria	Max. Allowable Injury Assessment Values	Measured Value
HIC15	700	31
Peak Nij (Nte)	1.0	0.6
Time (ms)	NA	12.3
Peak Nij (Ntf)	1.0	0.3
Time (ms)	NA	30.4
Peak Nij (Nce)	1.0	0.4
Time (ms)	NA	167.0
Peak Nij (Ncf)	1.0	0.0
Time (ms)	NA	284.6
Neck Tension	2070 N	1293
Neck Compression	2520 N	113
Chest g	60 g	29
Chest Displacement	52 mm	29
Left Femur	6805 N	285
Right Femur	6805 N	297

Calculated on data recorded for 125 ms after the initiation of the final stage of air bag deployment designed to deploy in any full frontal rigid barrier crash up to 26 km/h. (S4.11(d))

Second stage fire time of 200 ms; Injuries calculated on 0 ms to 325 ms

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**LOW RISK TEST DATA**

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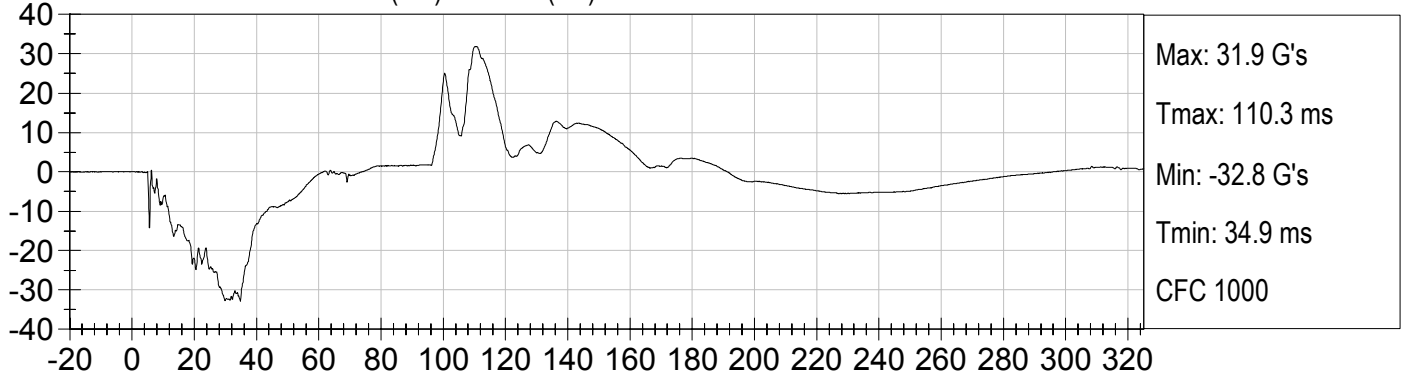
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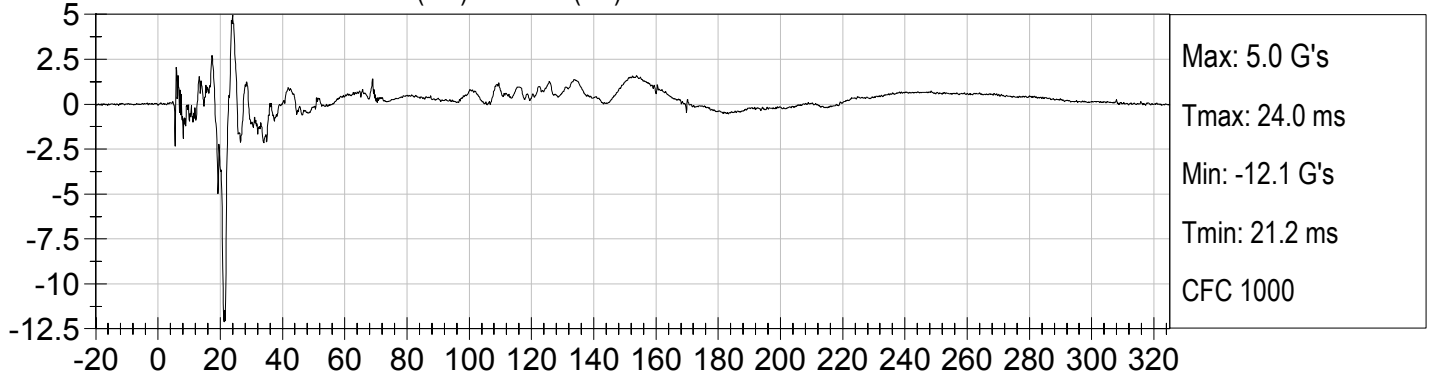
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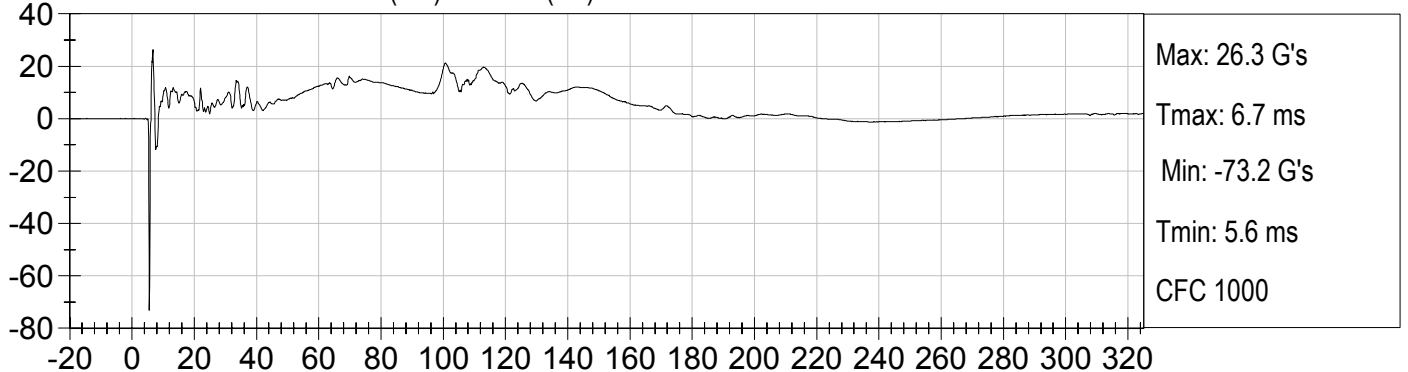
5TH FEM. DRIVER HEAD X (G's) vs TIME (ms)



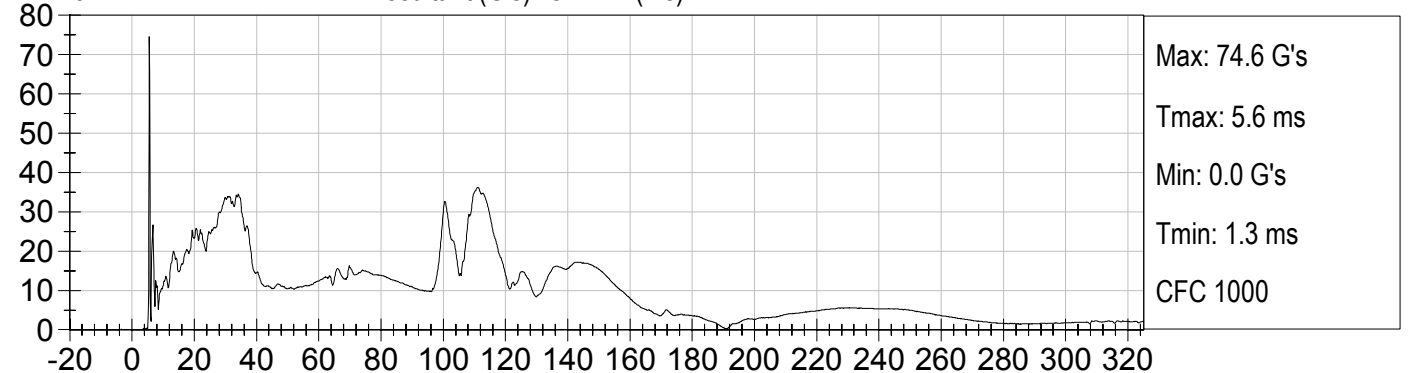
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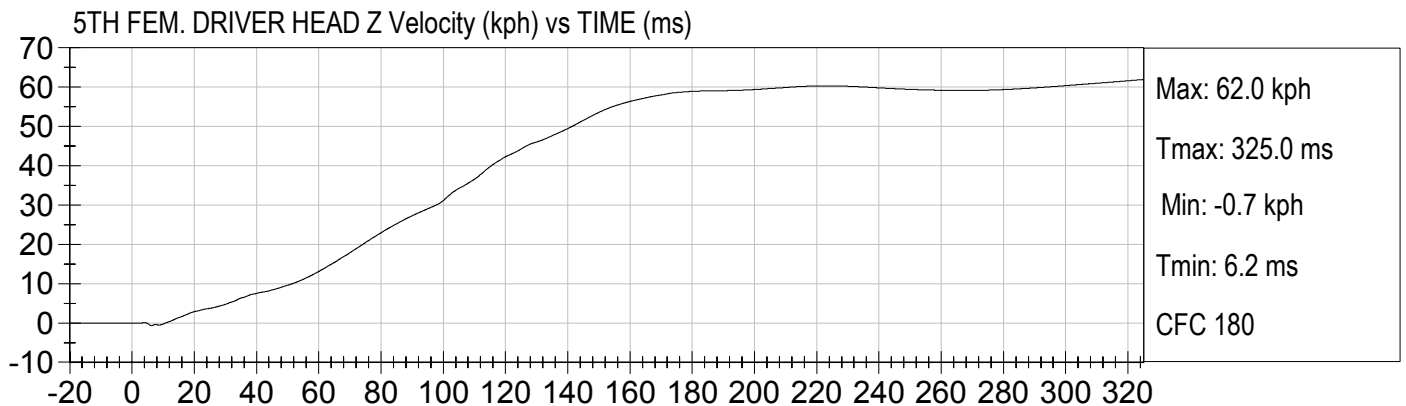
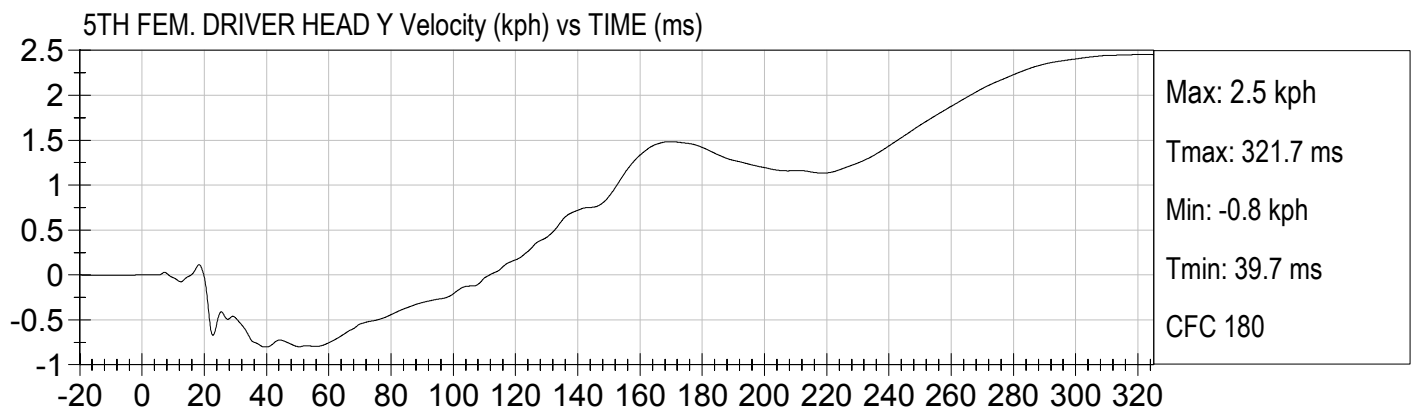
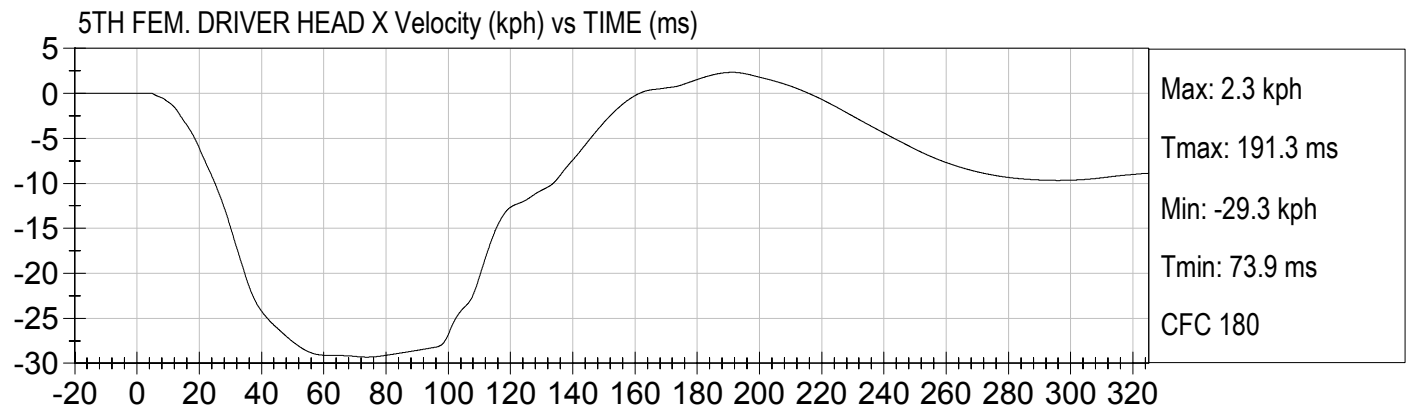
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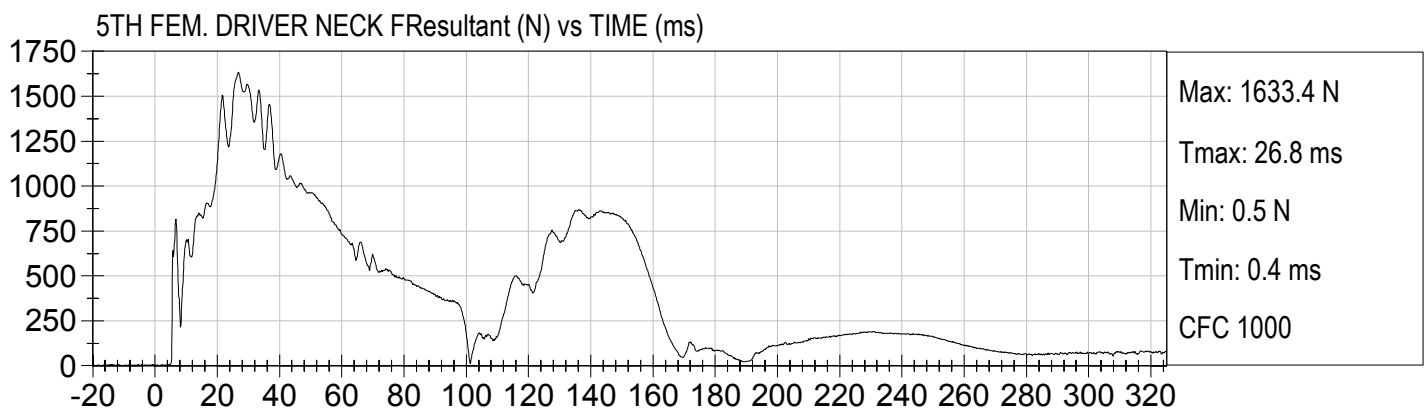
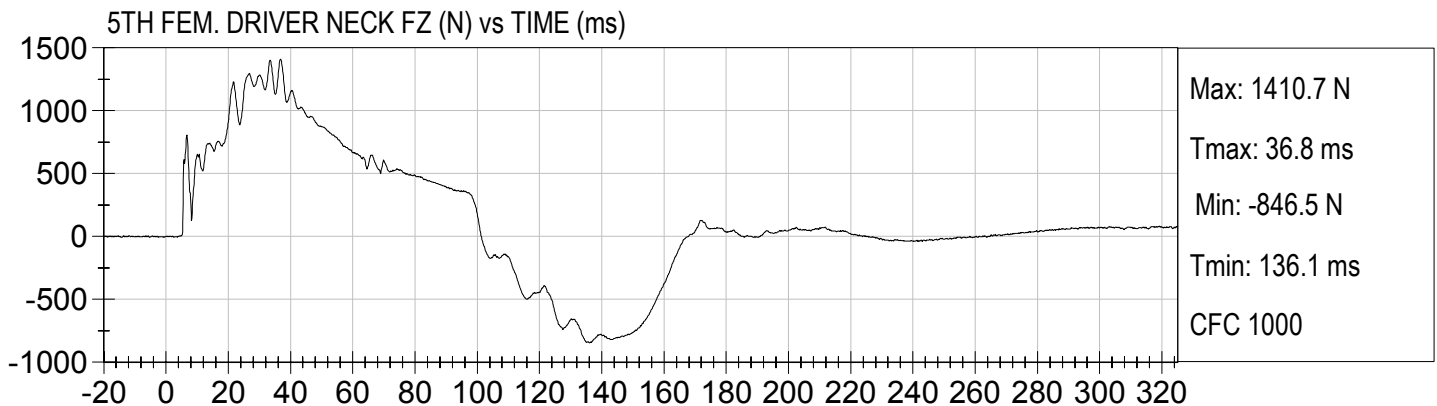
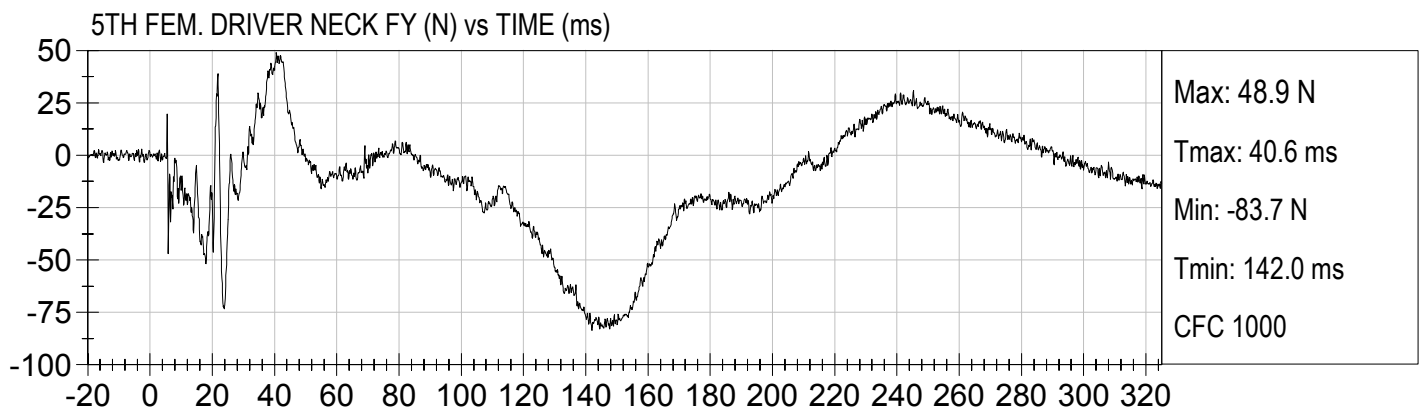
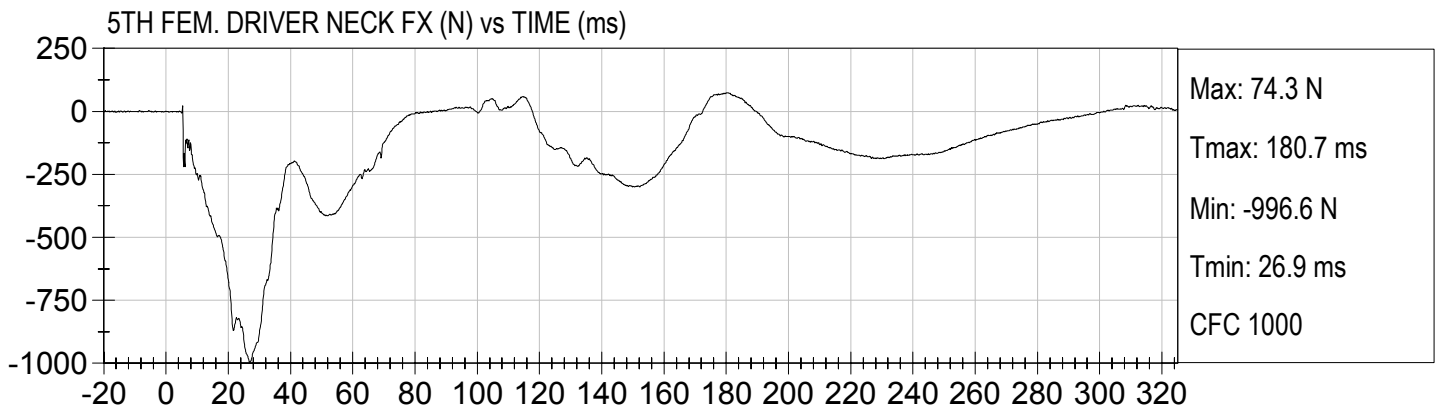


5TH FEM. DRIVER HEAD Resultant (G's) vs TIME (ms)



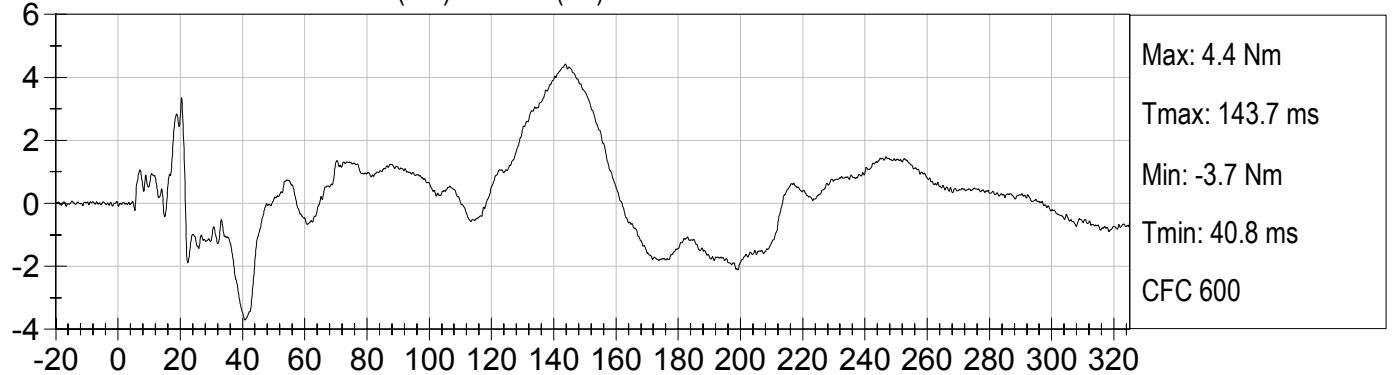




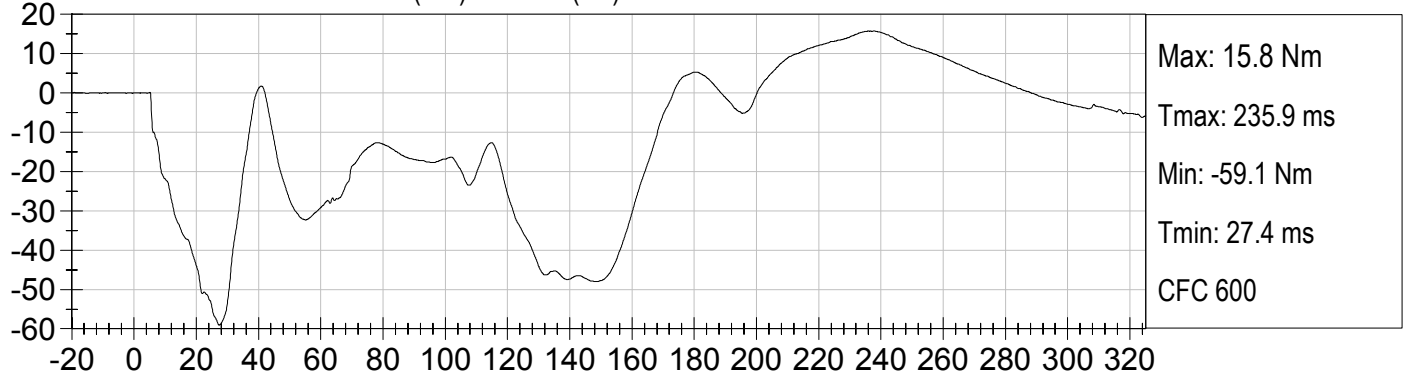




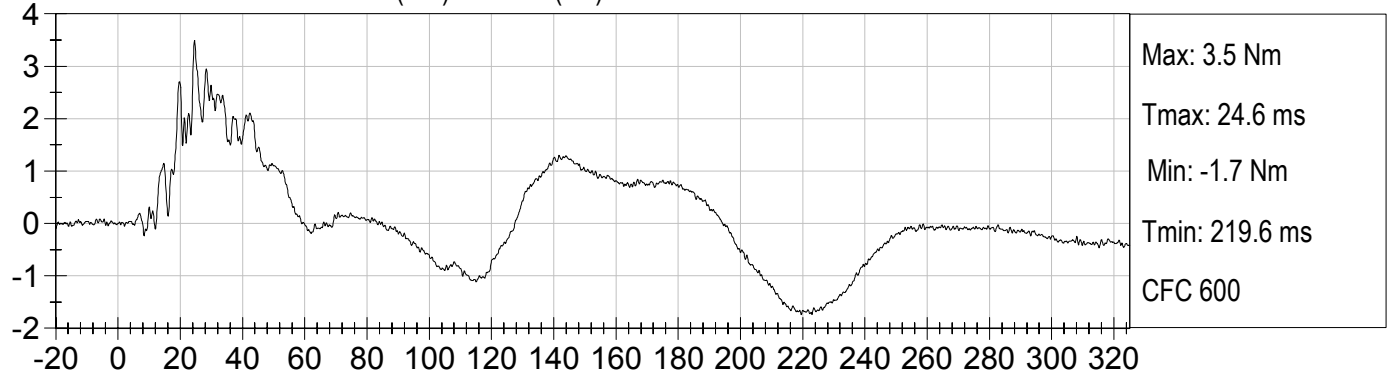
5TH FEM. DRIVER NECK MX (Nm) vs TIME (ms)



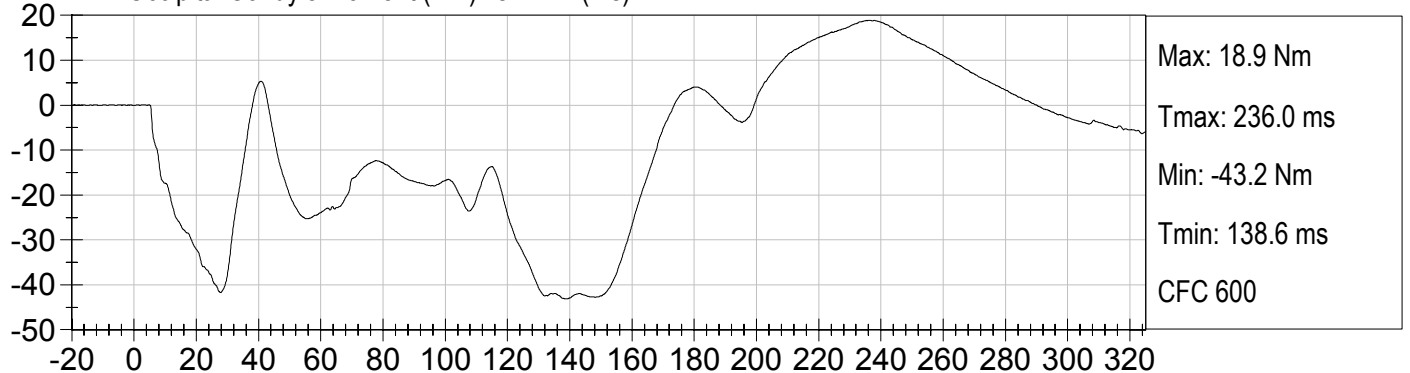
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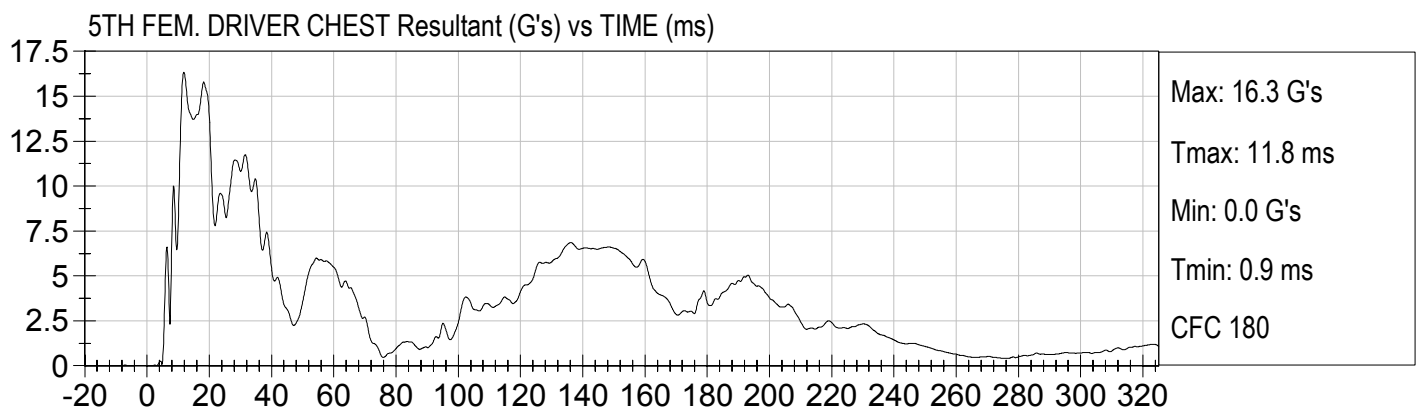
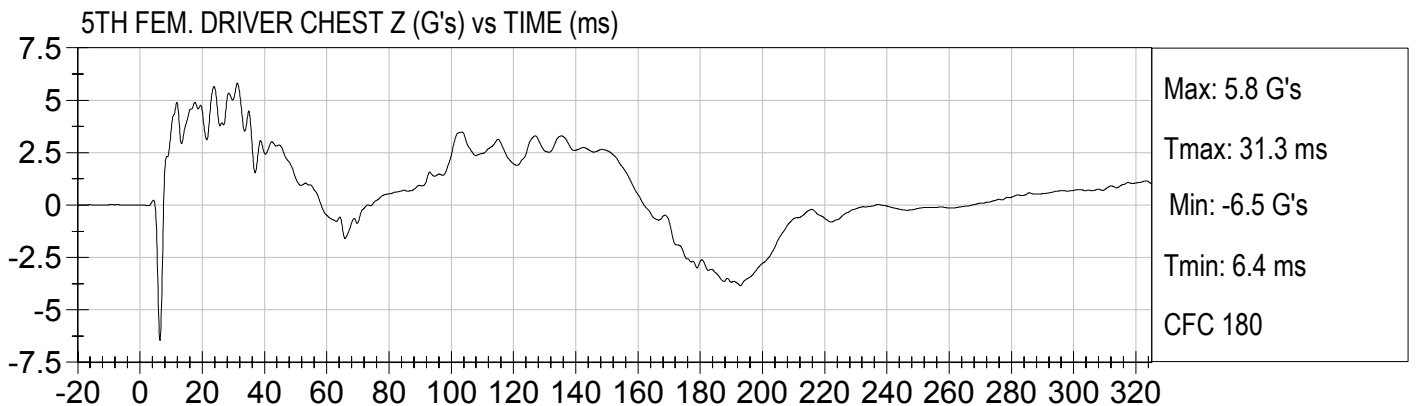
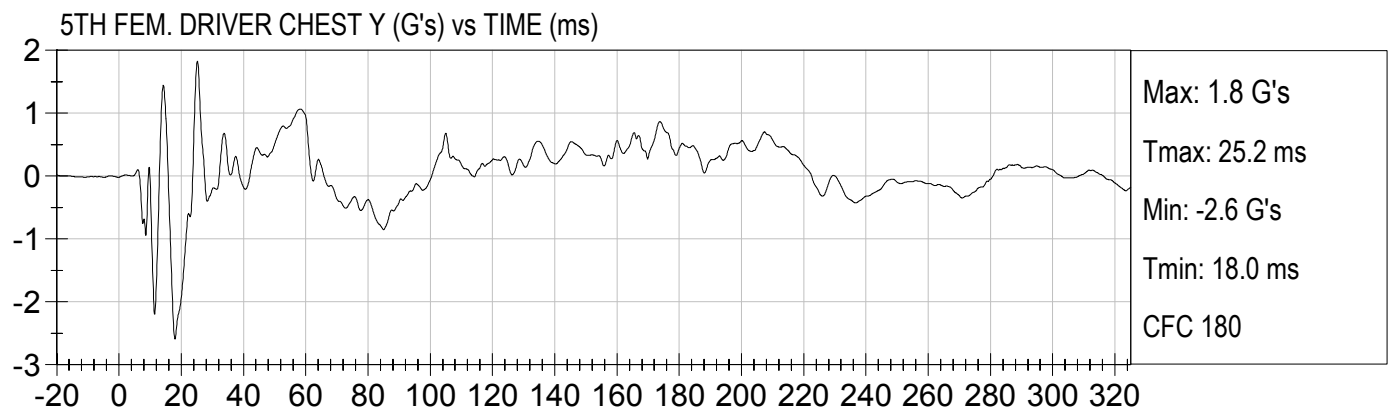
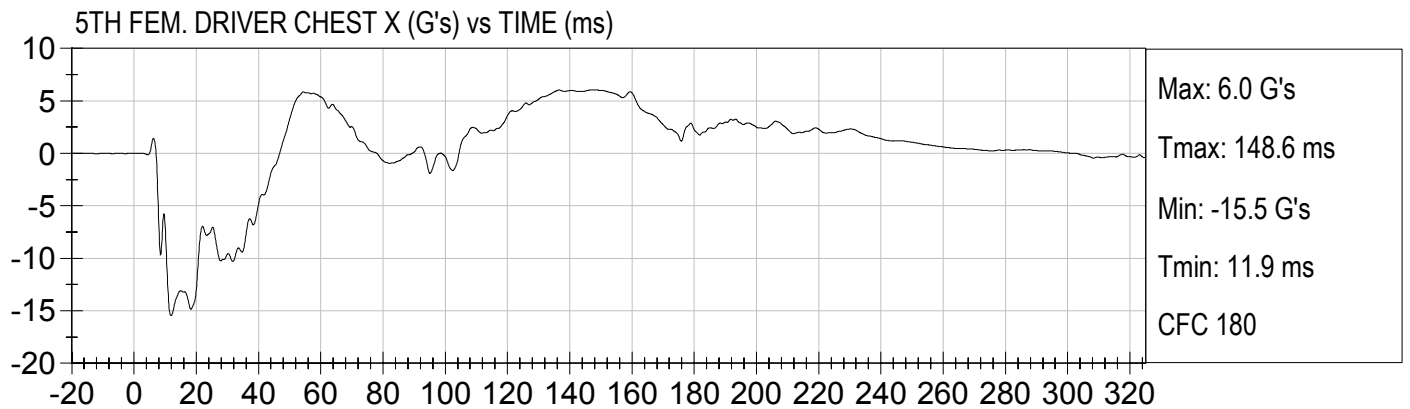


5TH FEM. DRIVER NECK MZ (Nm) vs TIME (ms)



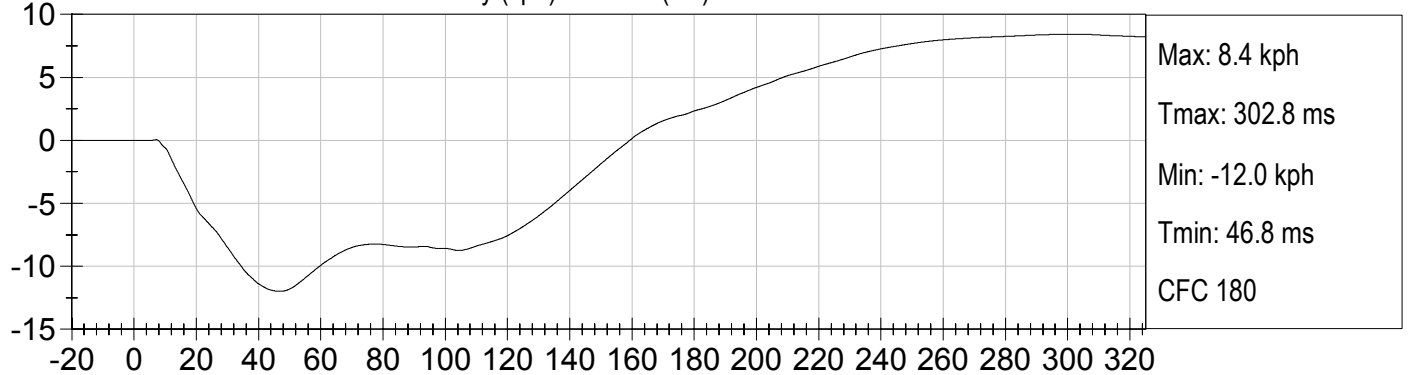
Drv. Occipital Condyle Moment (Nm) vs TIME (ms)



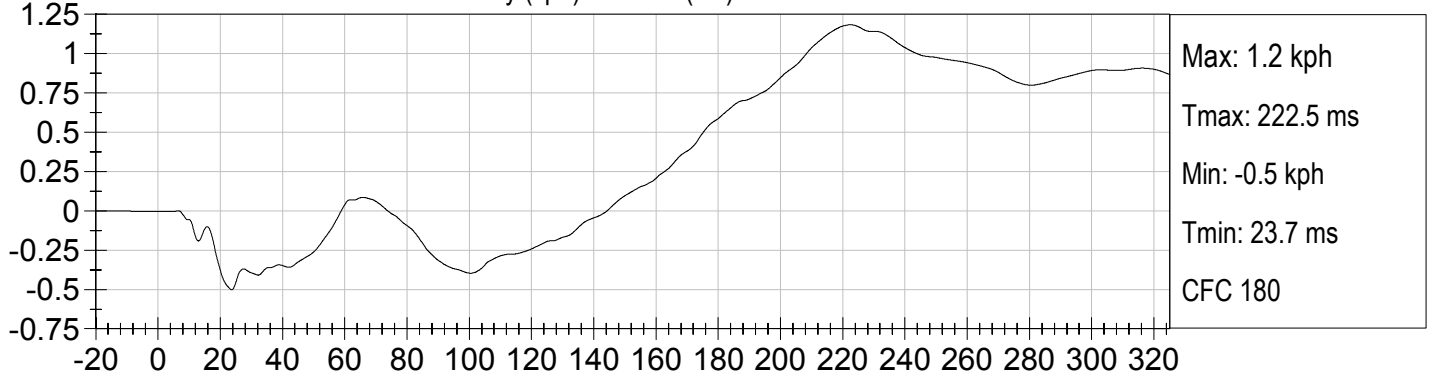




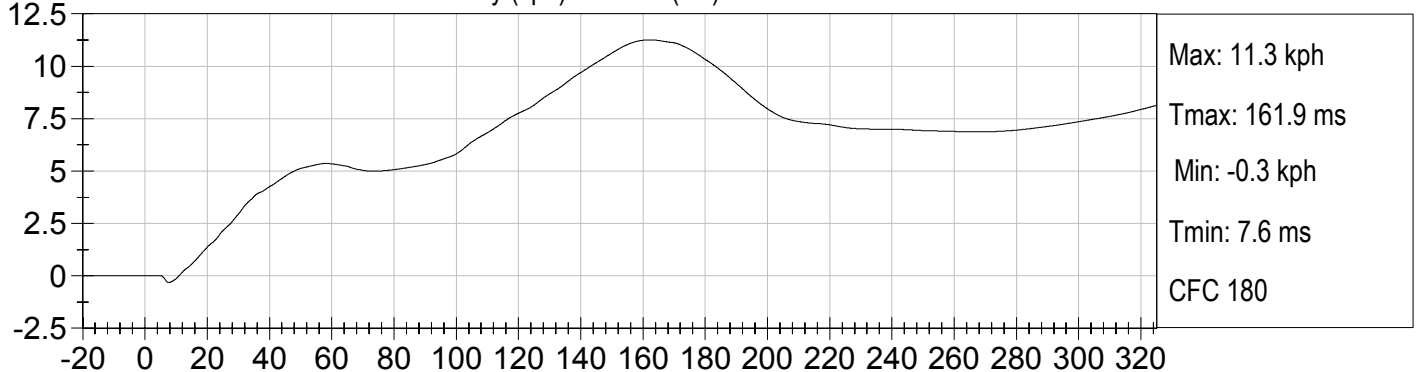
5TH FEM. DRIVER CHEST X Velocity (kph) vs TIME (ms)



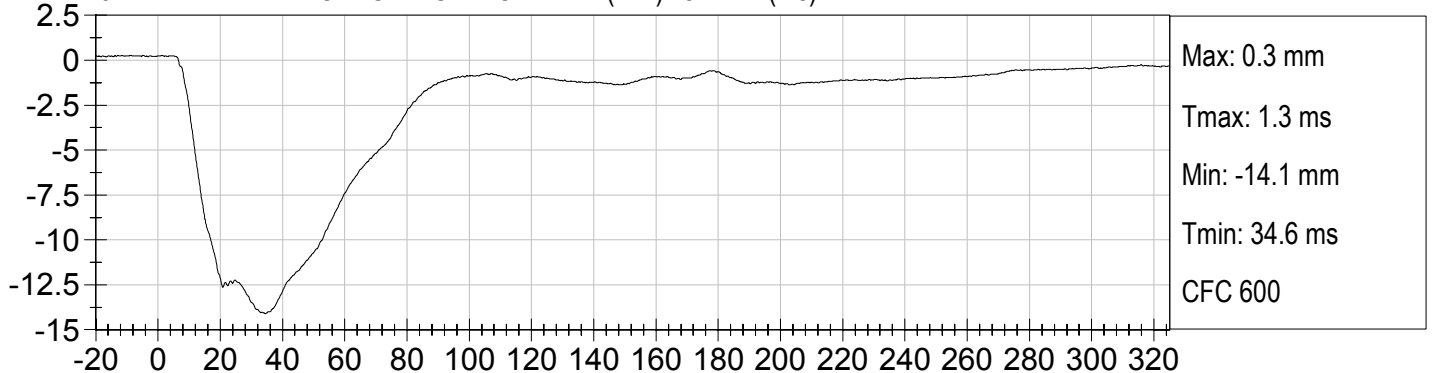
5TH FEM. DRIVER CHEST Y Velocity (kph) vs TIME (ms)

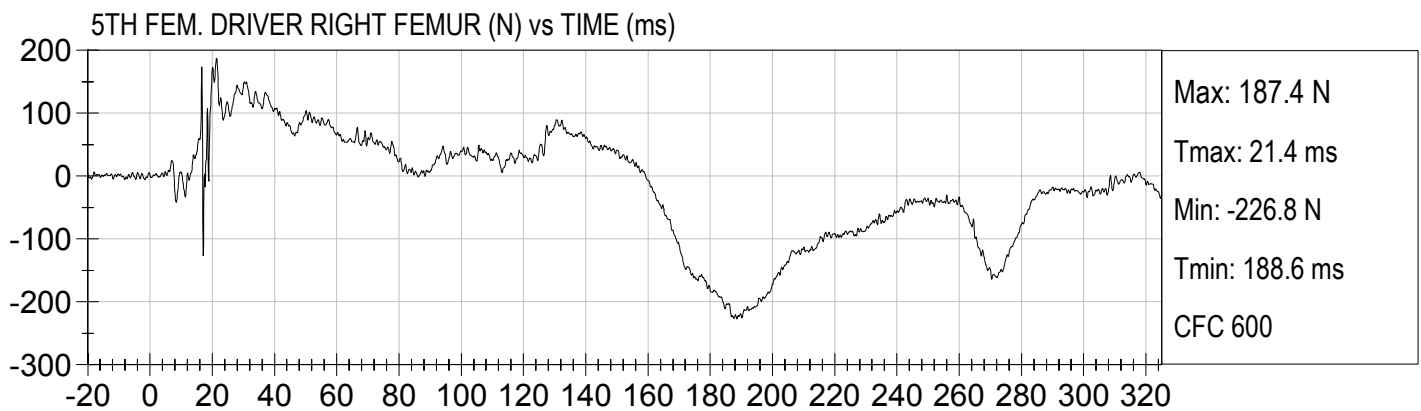
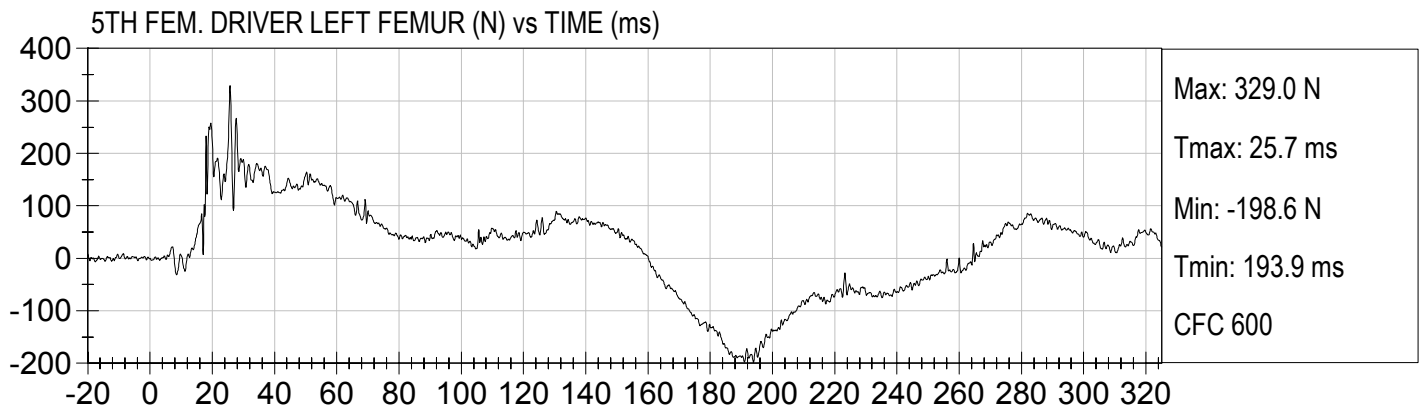


5TH FEM. DRIVER CHEST Z Velocity (kph) vs TIME (ms)



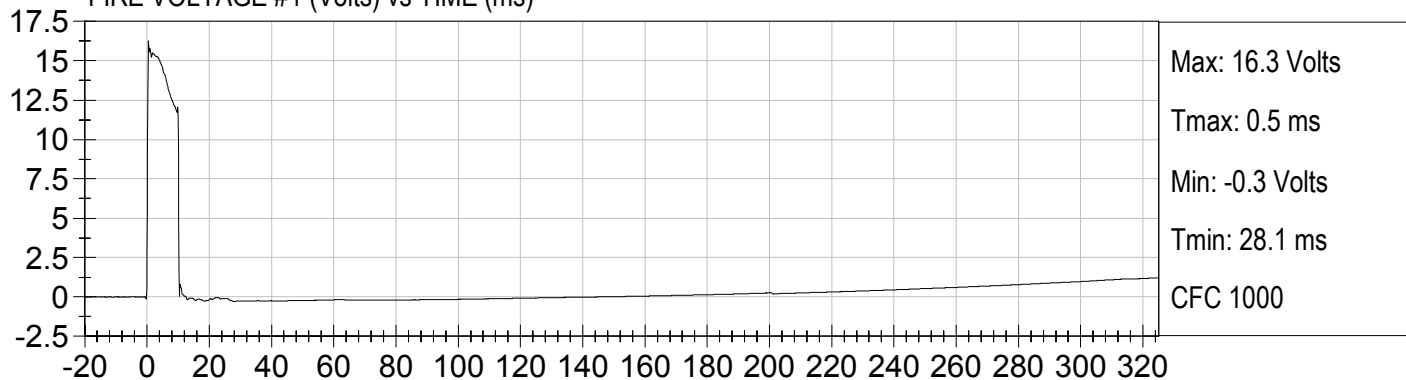
5TH FEM. DRIVER CHEST DISPLACEMENT (mm) vs TIME (ms)



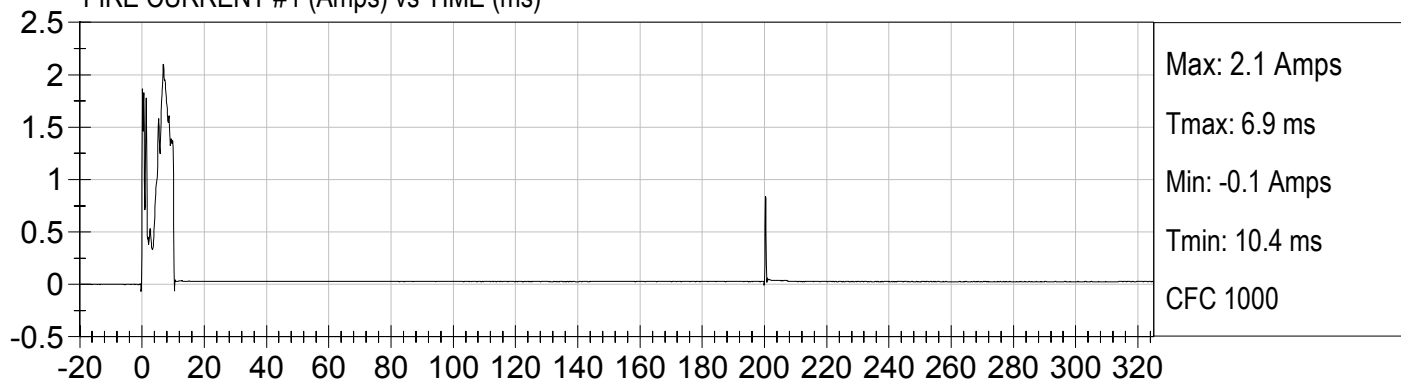




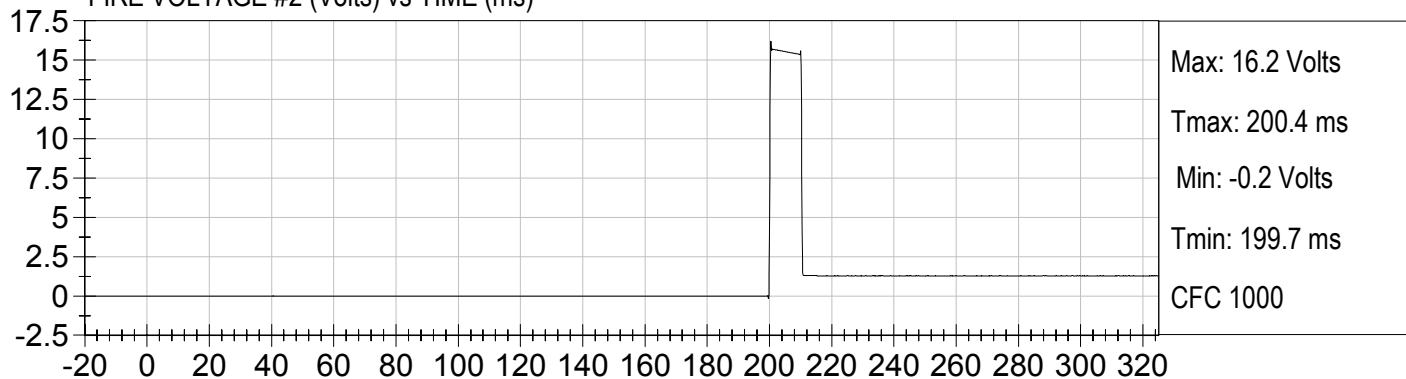
FIRE VOLTAGE #1 (Volts) vs TIME (ms)



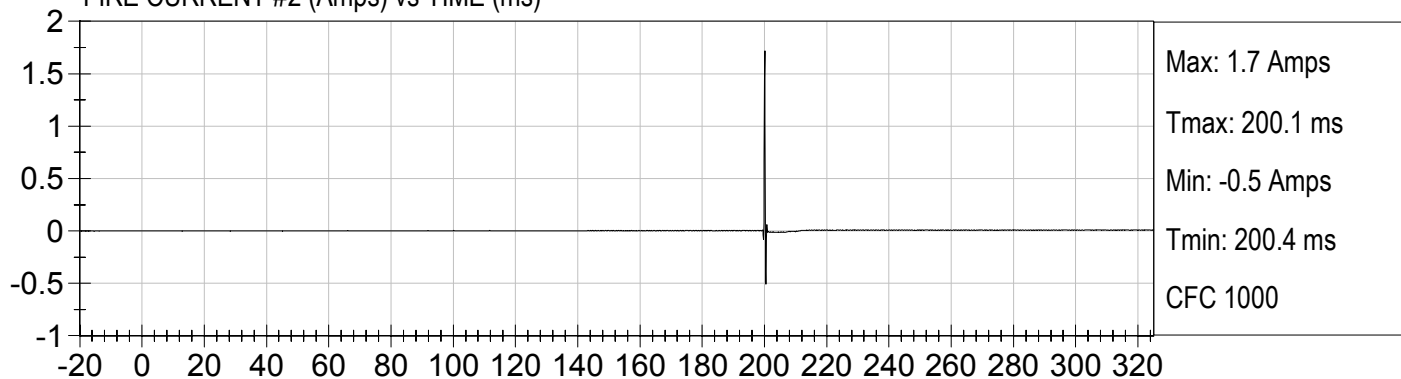
FIRE CURRENT #1 (Amps) vs TIME (ms)



FIRE VOLTAGE #2 (Volts) vs TIME (ms)

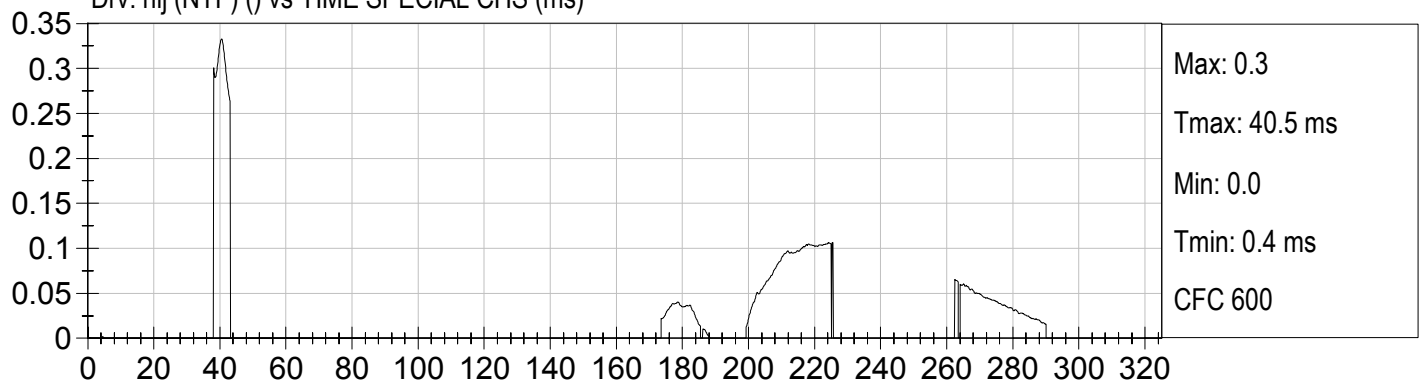


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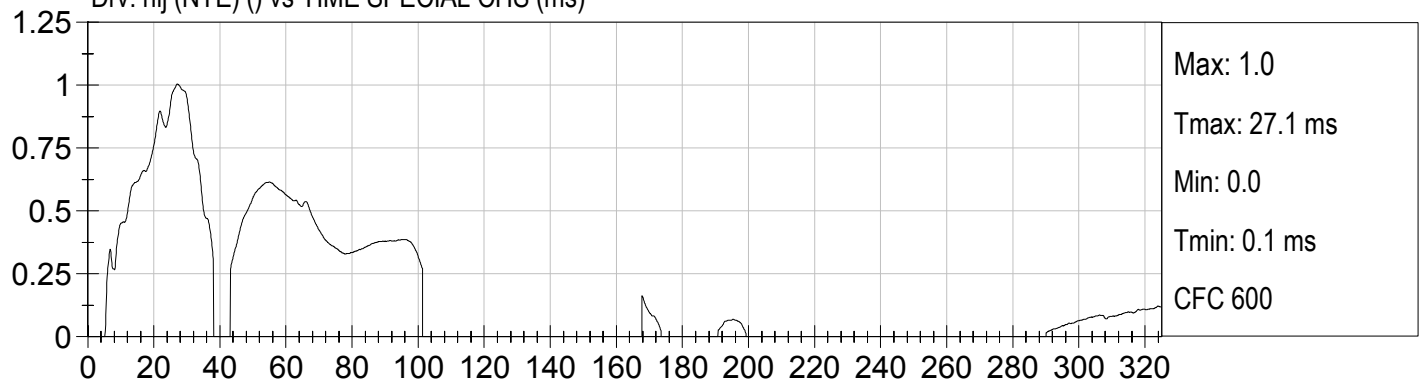




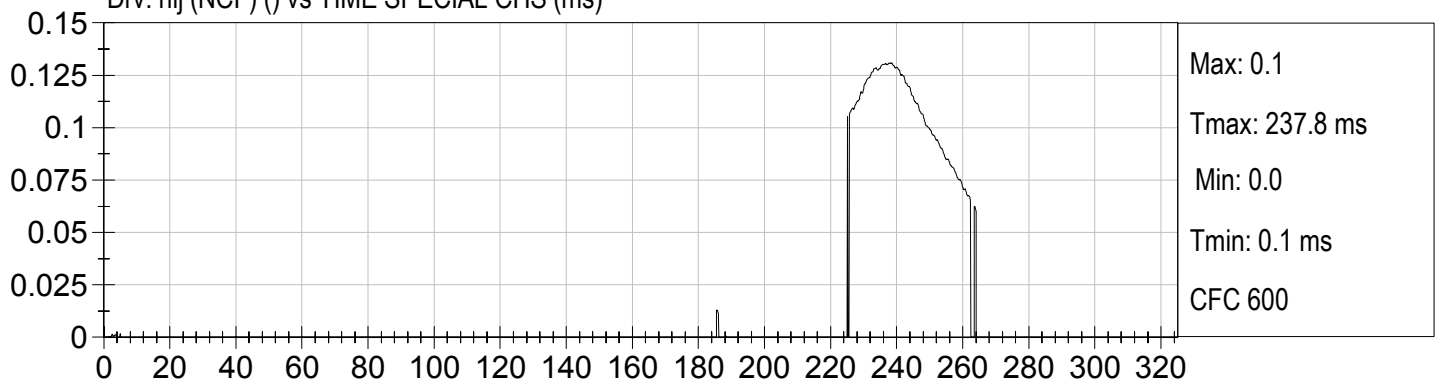
Drv. nij (NTF) ( ) vs TIME SPECIAL CHS (ms)



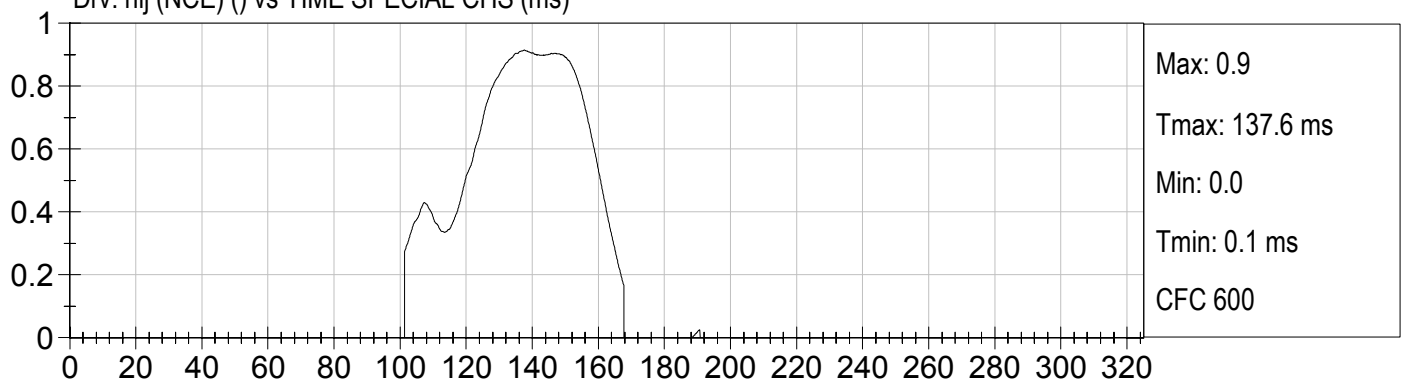
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Drv. nij (NCF) ( ) vs TIME SPECIAL CHS (ms)



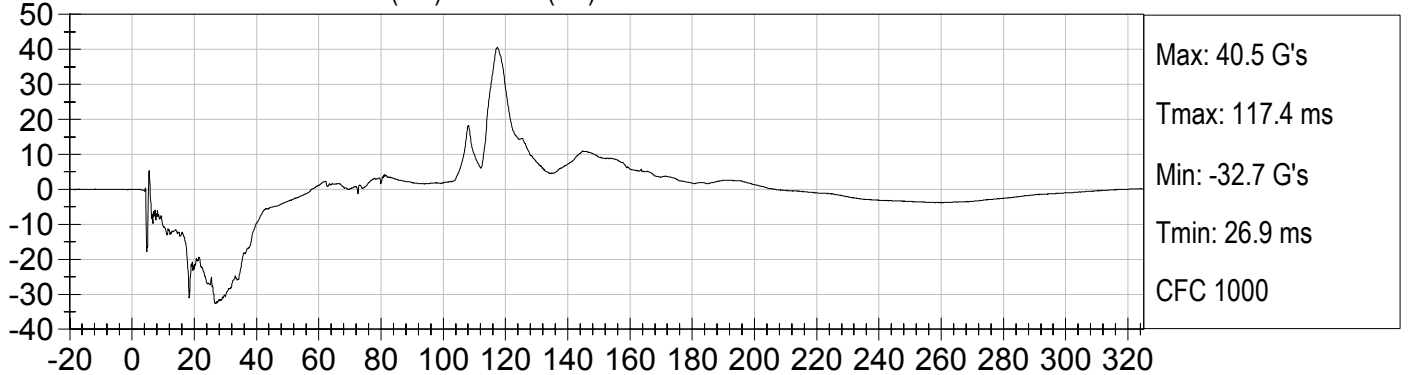
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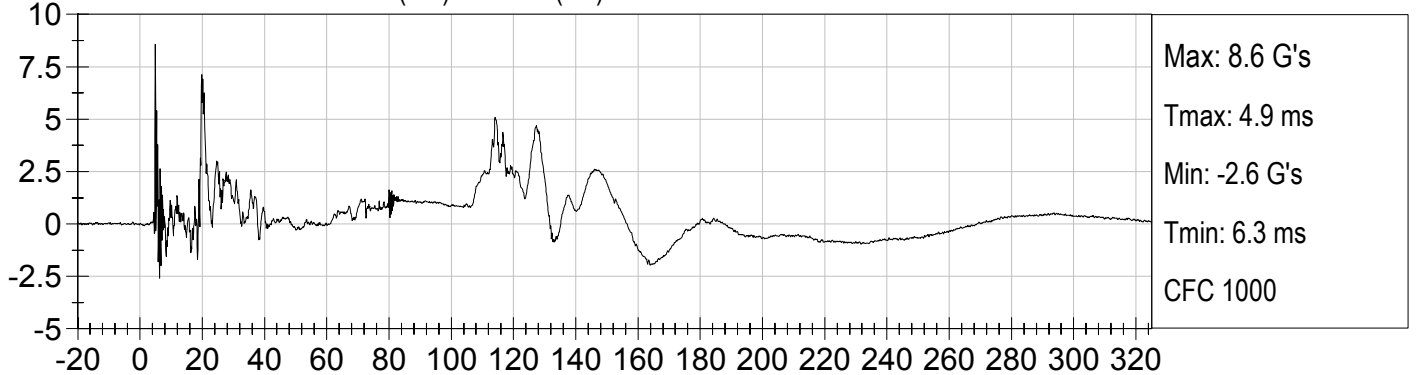




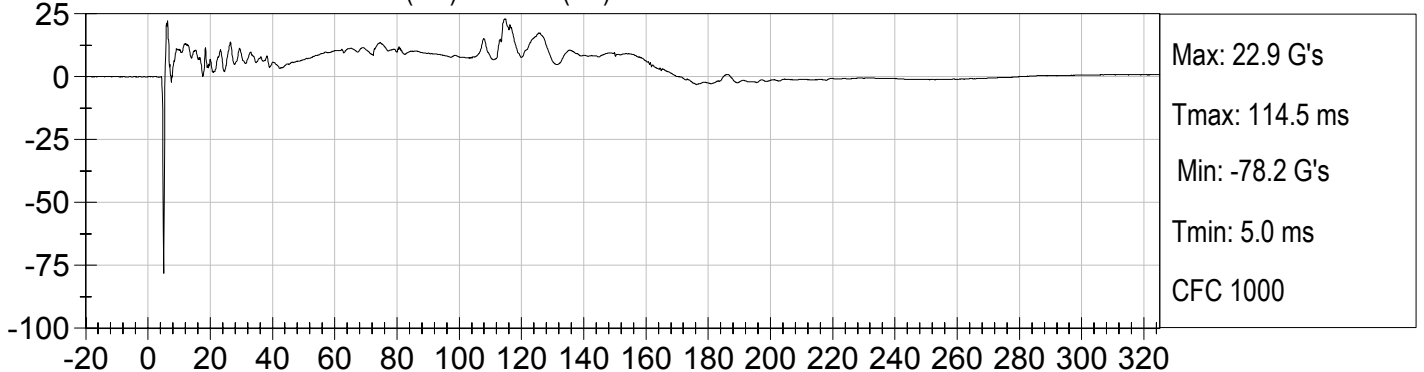
5TH FEM. DRIVER HEAD X (G's) vs TIME (ms)



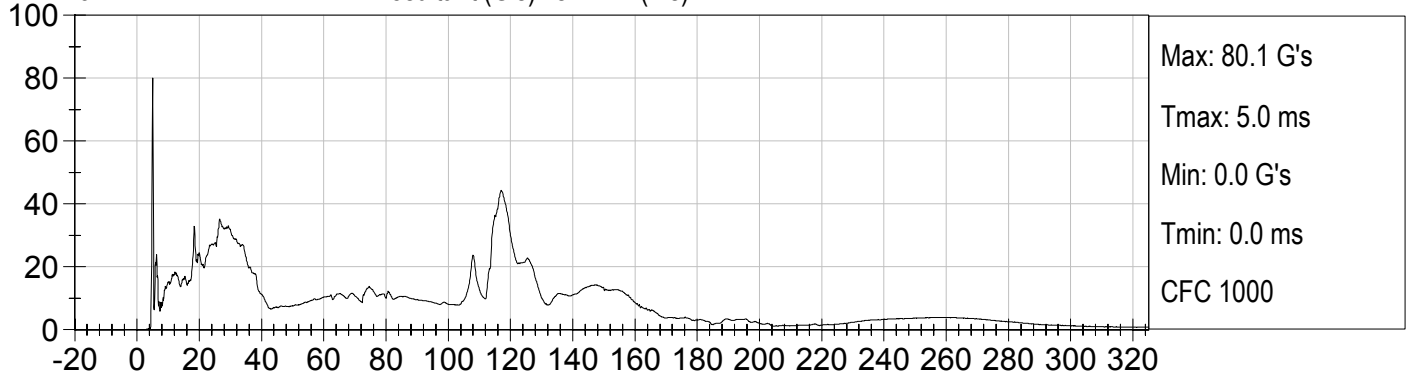
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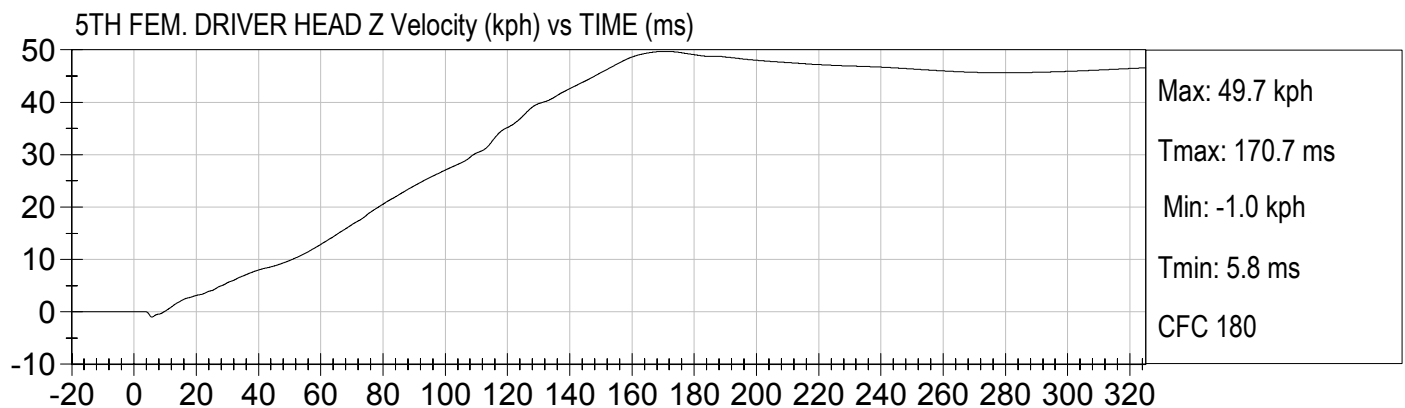
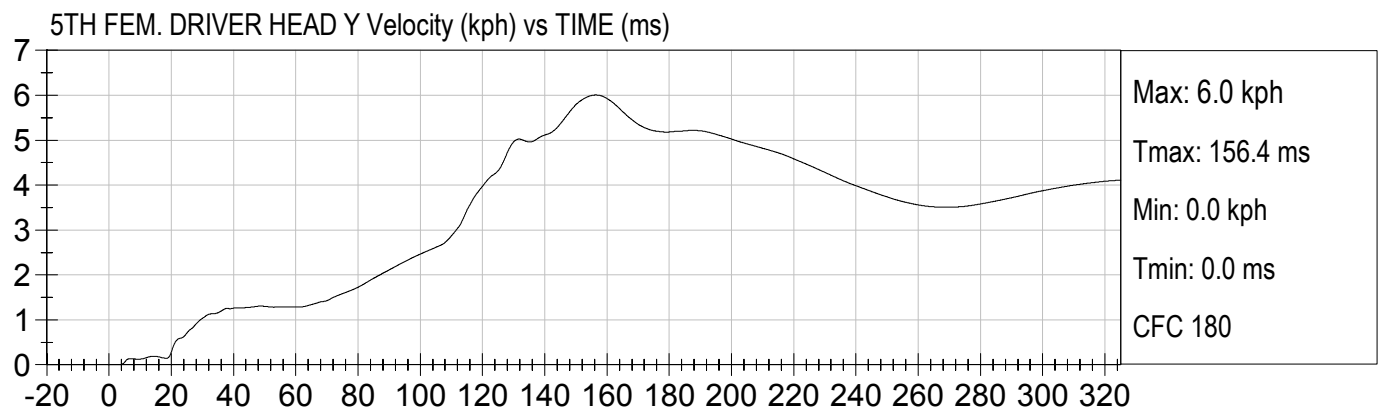
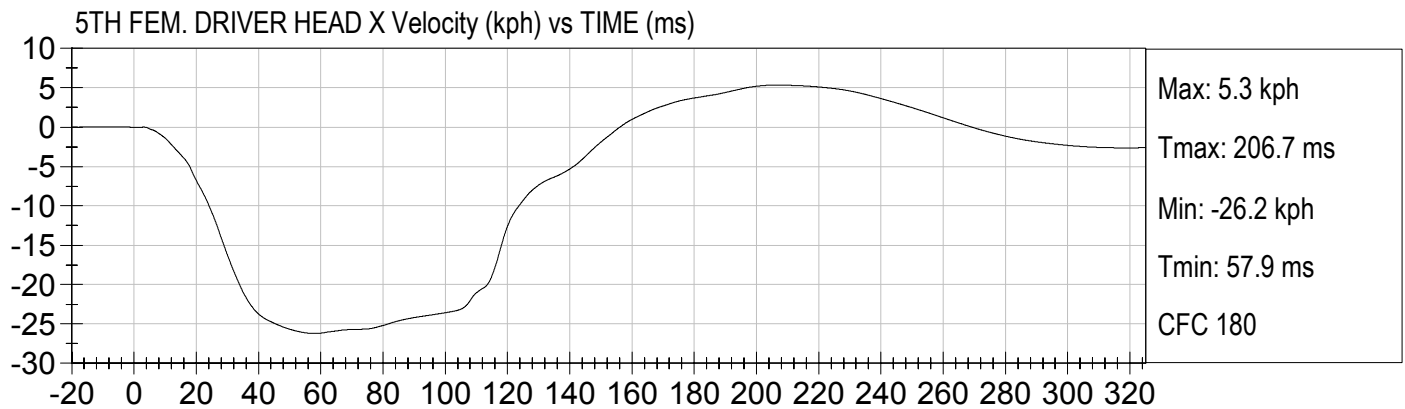


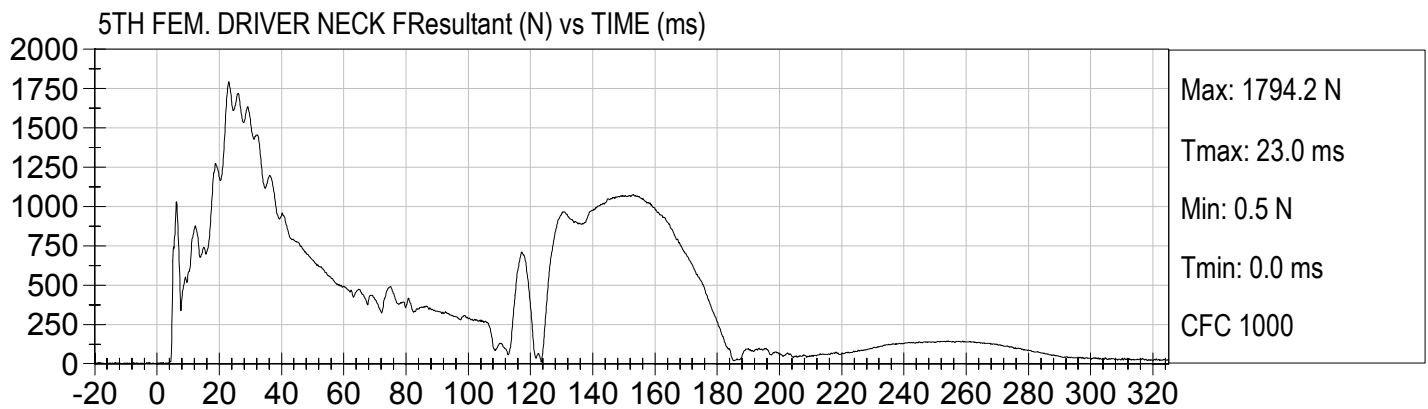
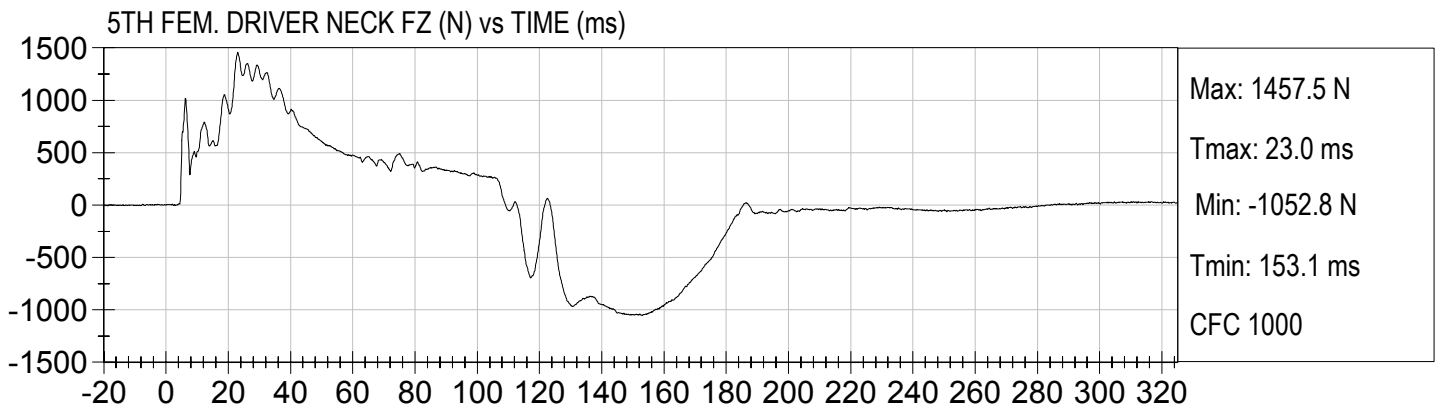
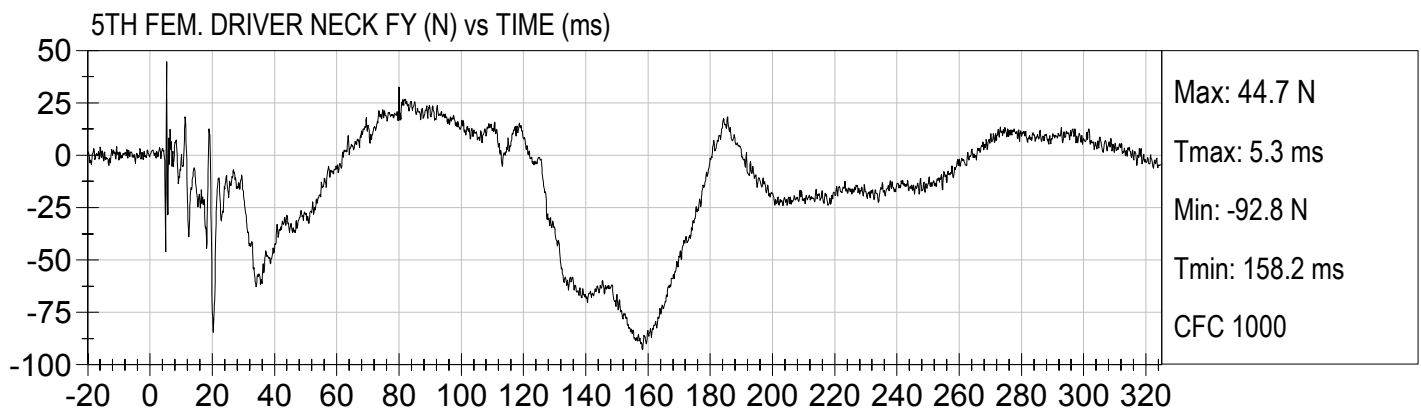
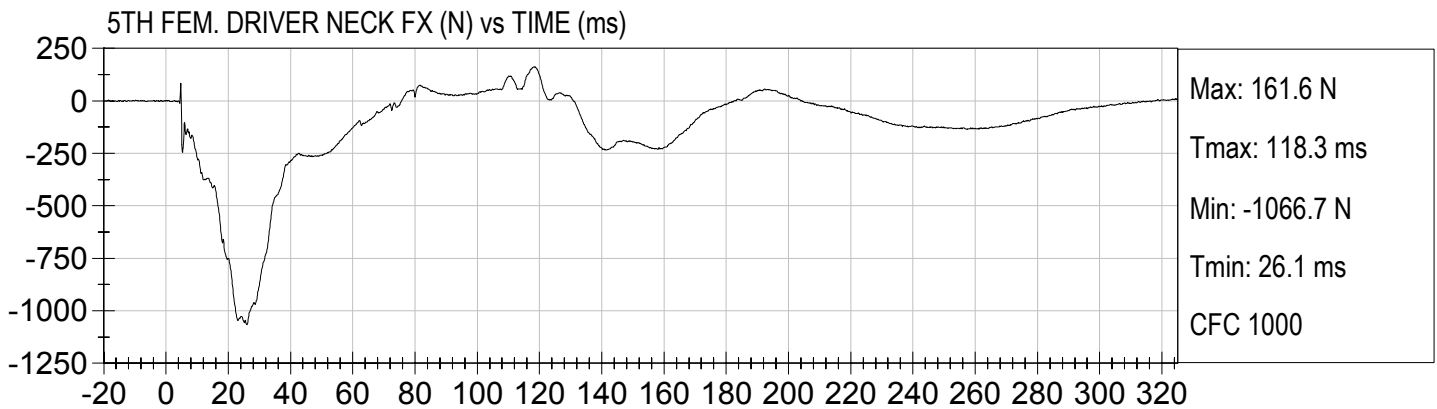
5TH FEM. DRIVER HEAD Z (G's) vs TIME (ms)

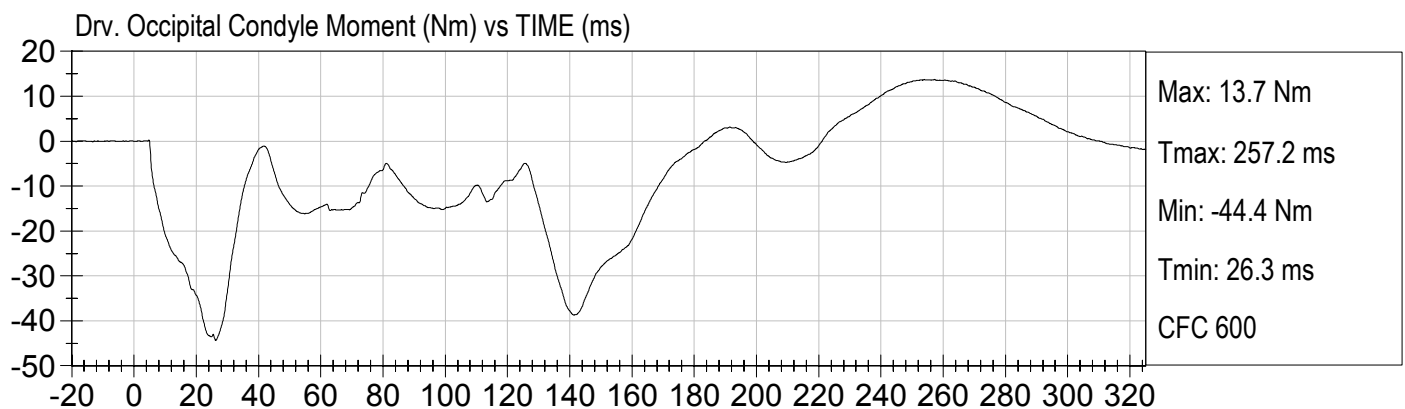
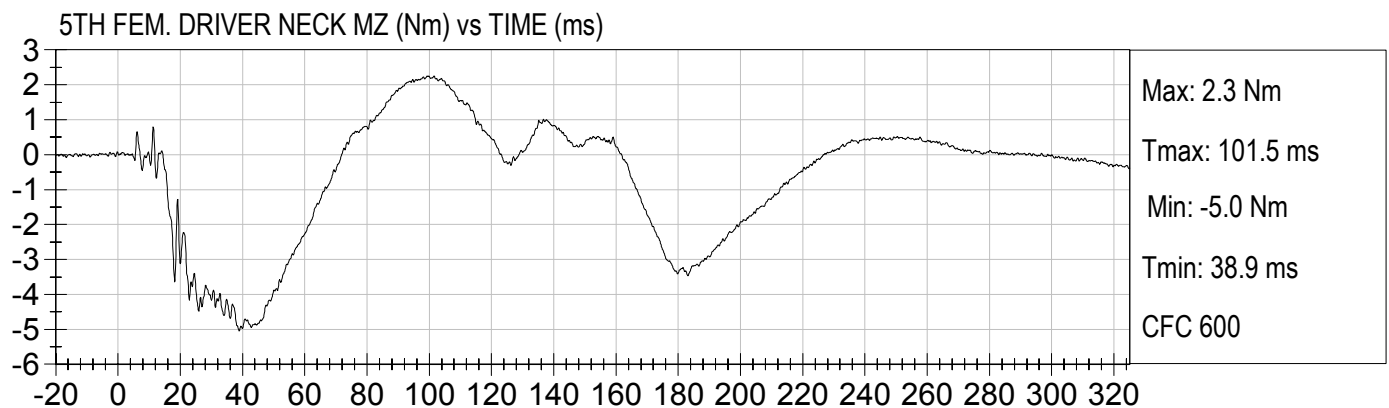
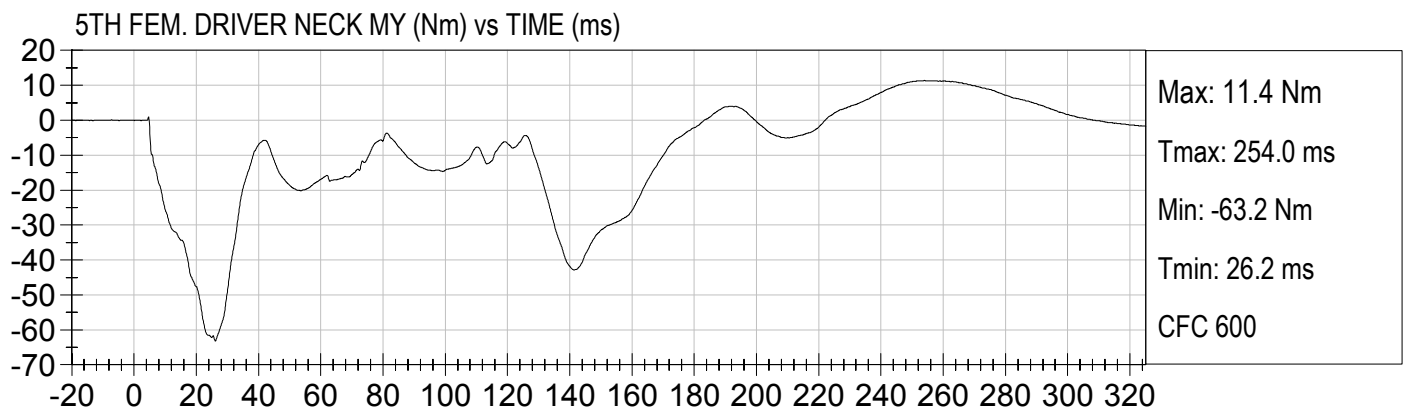
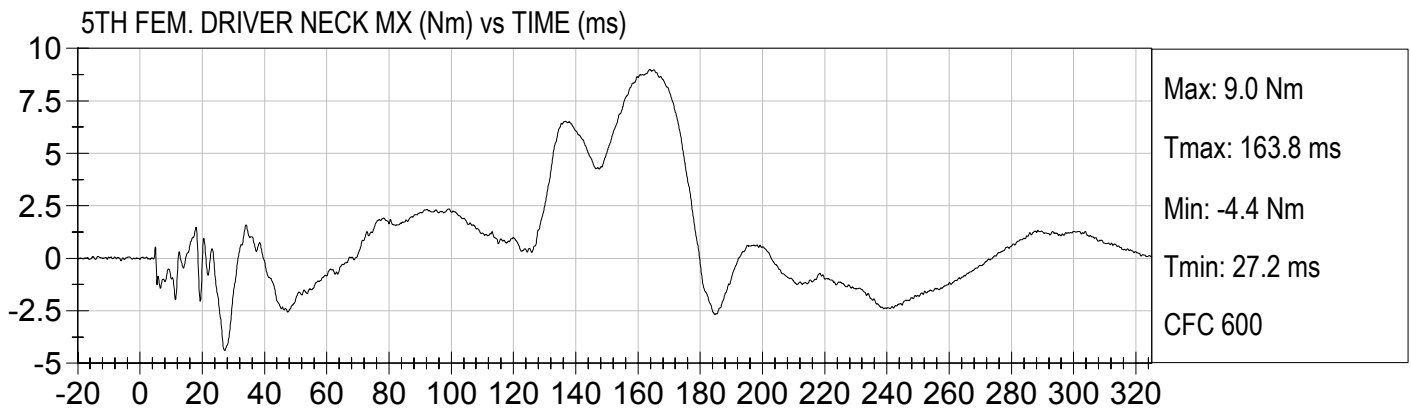


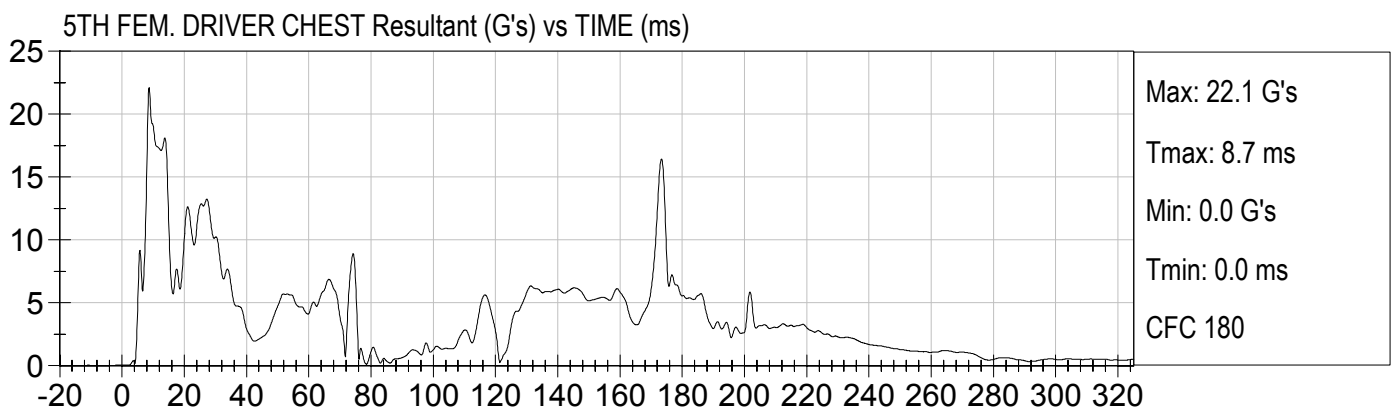
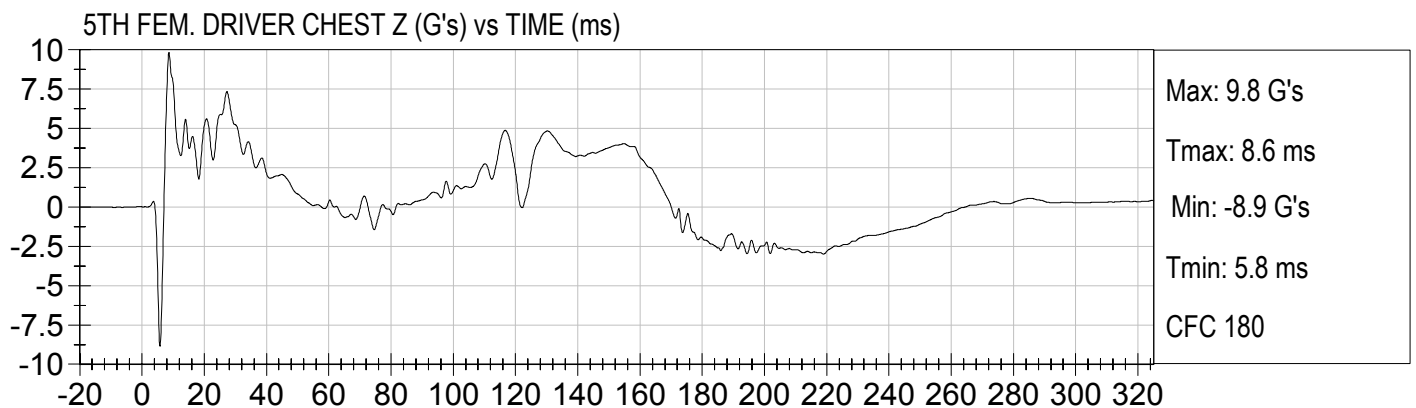
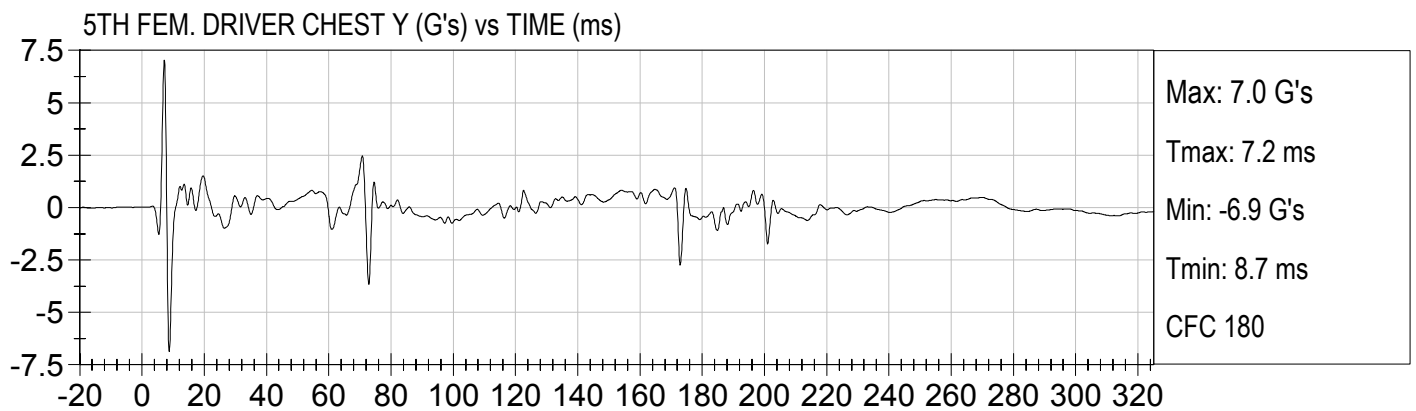
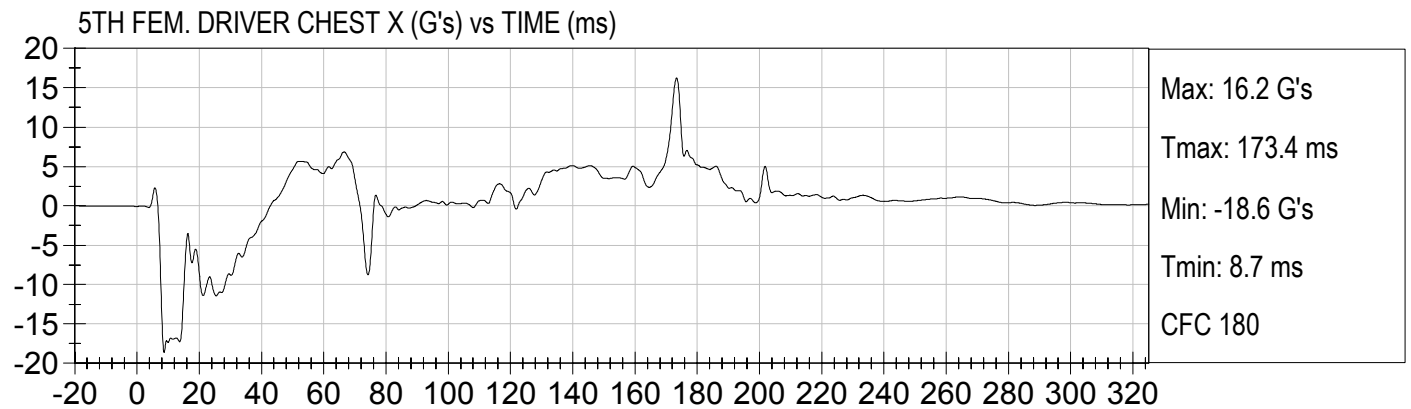
5TH FEM. DRIVER HEAD Resultant (G's) vs TIME (ms)





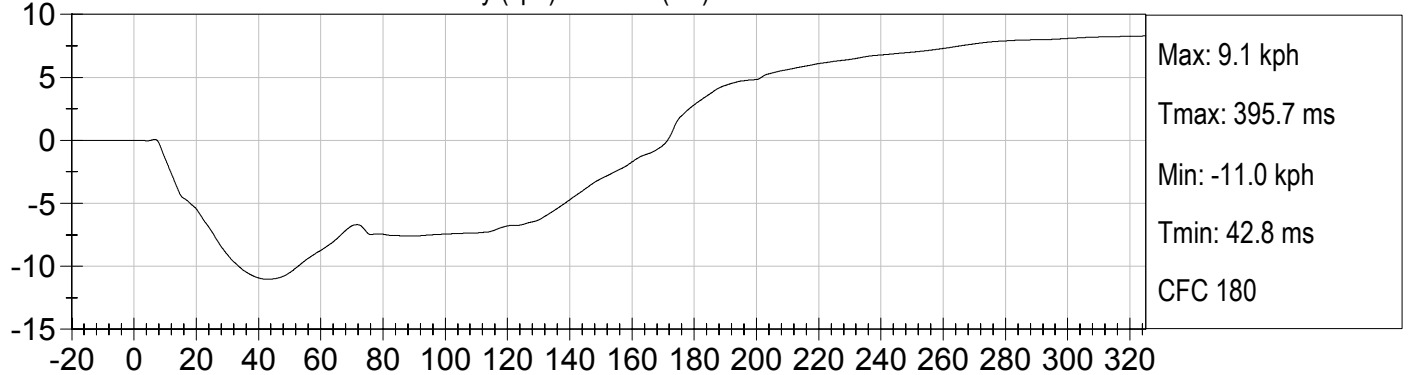




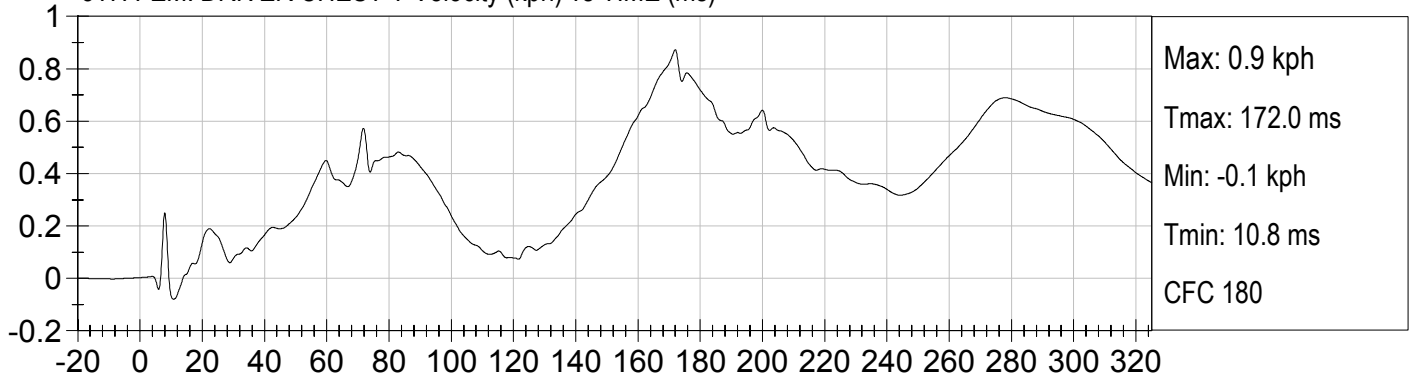




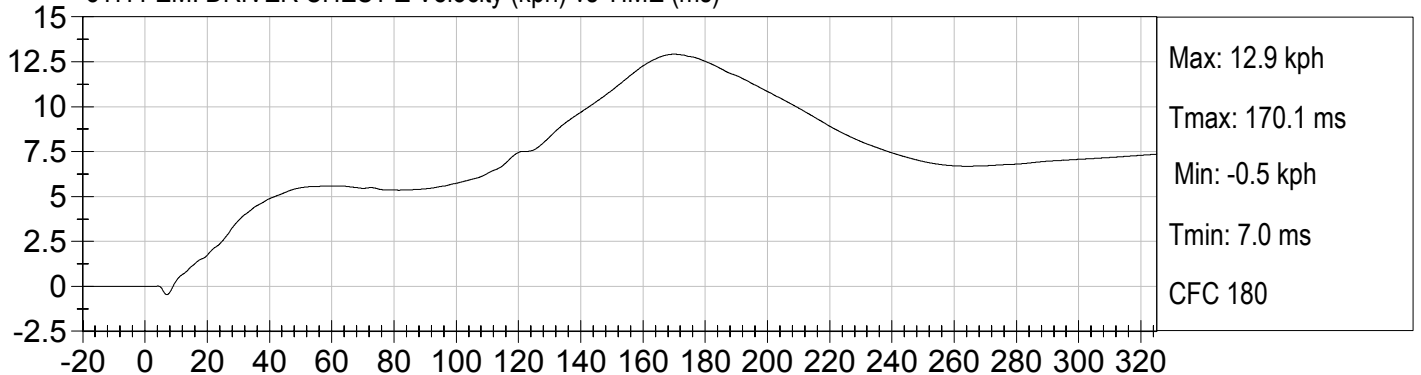
5TH FEM. DRIVER CHEST X Velocity (kph) vs TIME (ms)



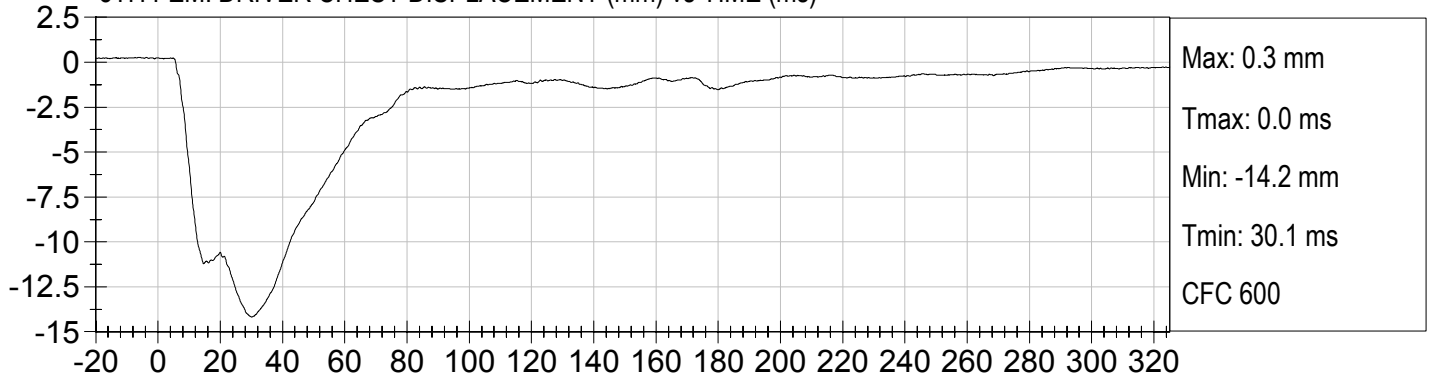
5TH FEM. DRIVER CHEST Y Velocity (kph) vs TIME (ms)

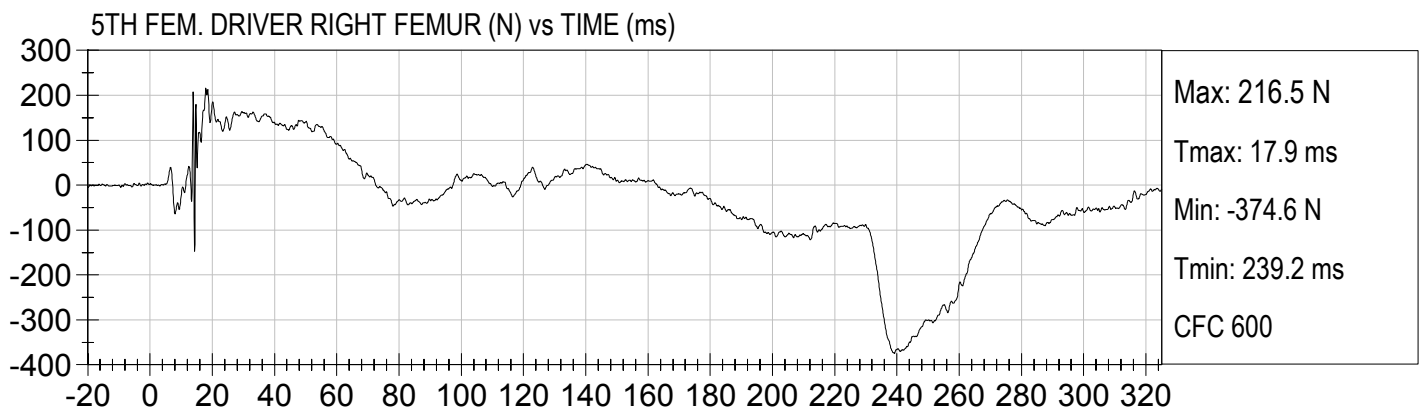
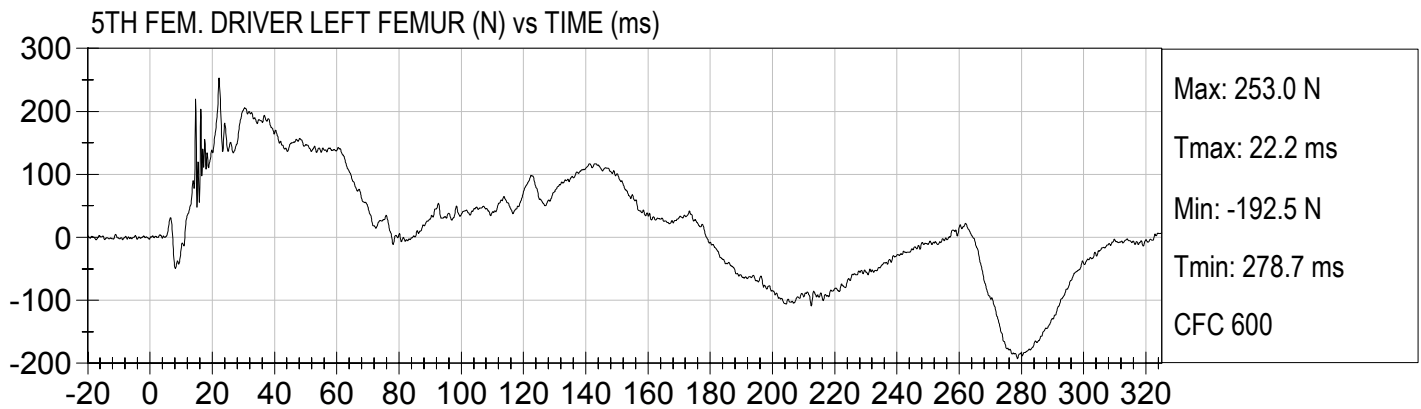


5TH FEM. DRIVER CHEST Z Velocity (kph) vs TIME (ms)



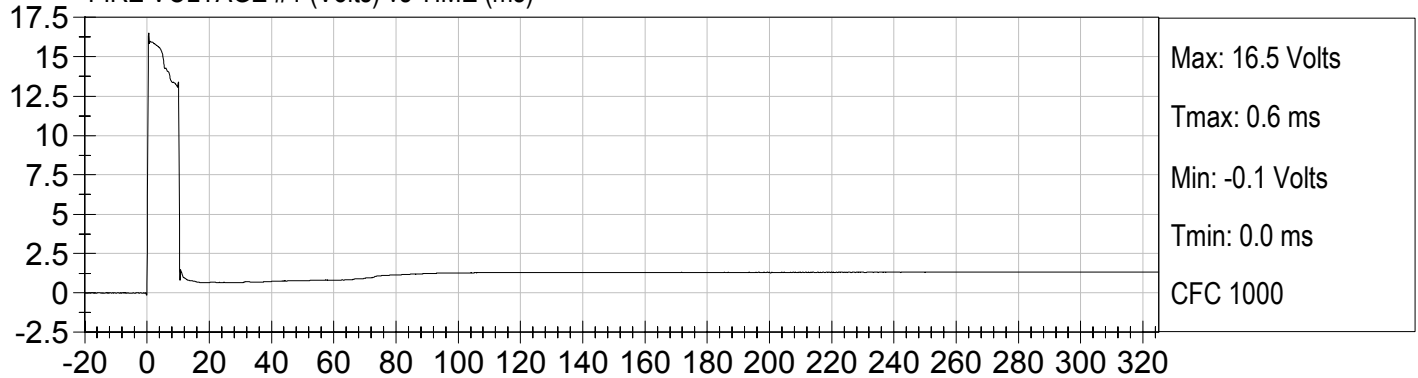
5TH FEM. DRIVER CHEST DISPLACEMENT (mm) vs TIME (ms)



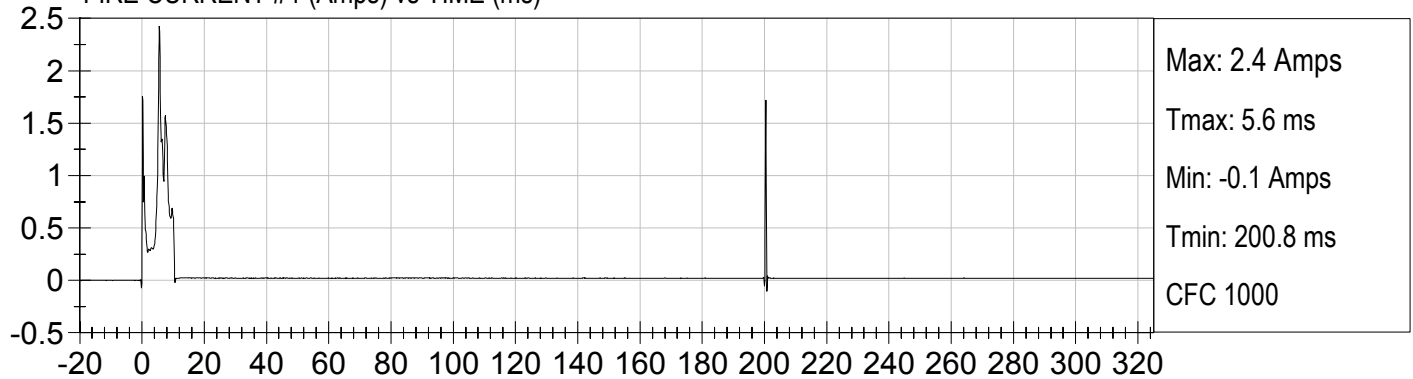




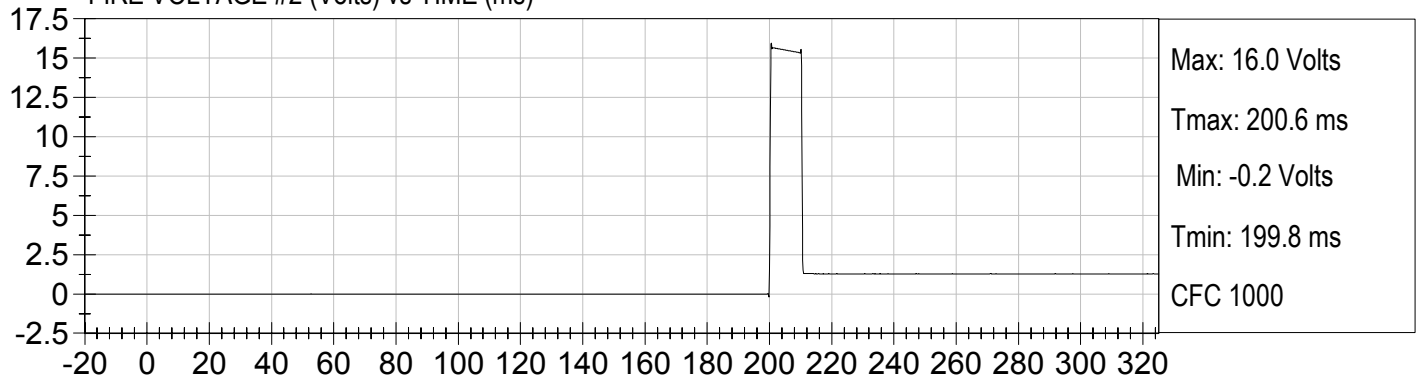
FIRE VOLTAGE #1 (Volts) vs TIME (ms)



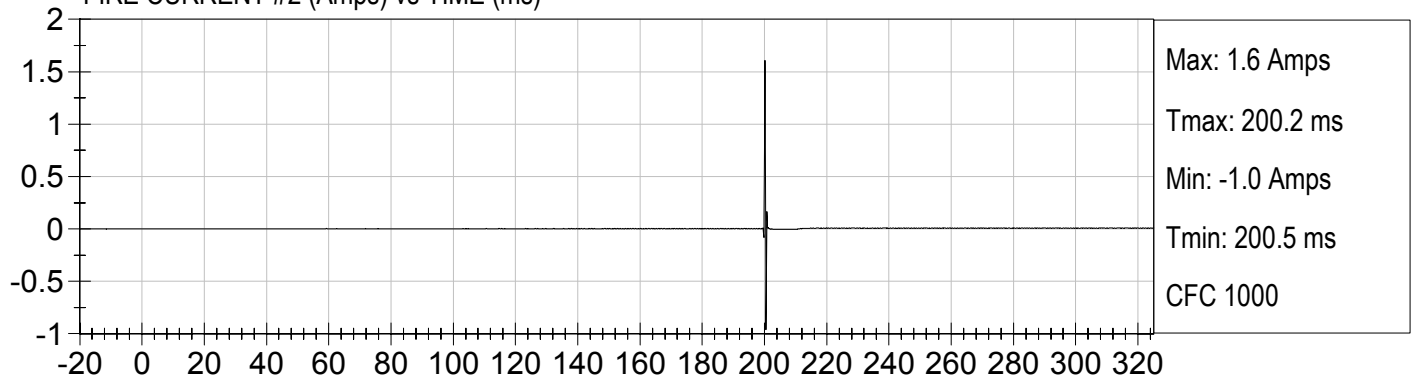
FIRE CURRENT #1 (Amps) vs TIME (ms)



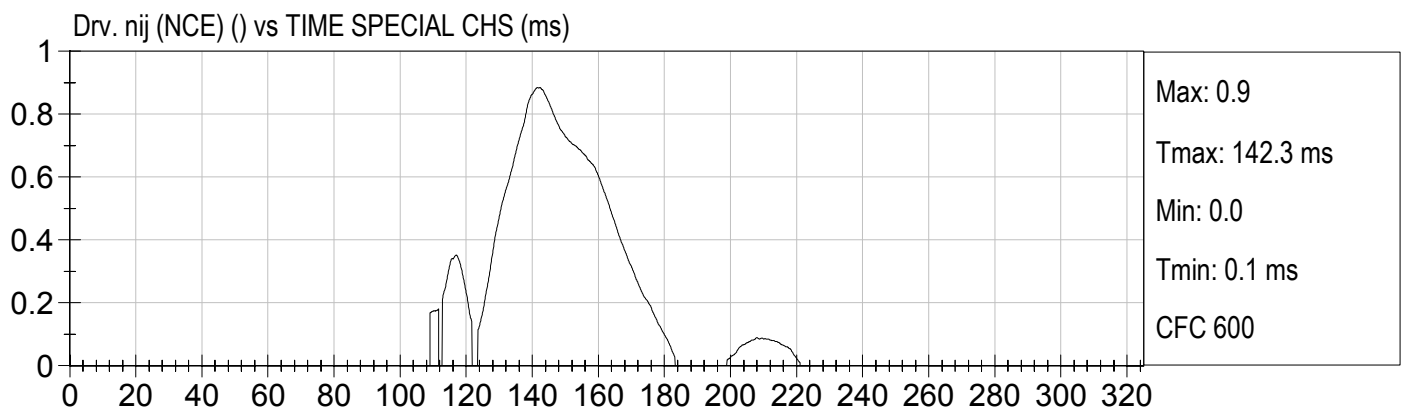
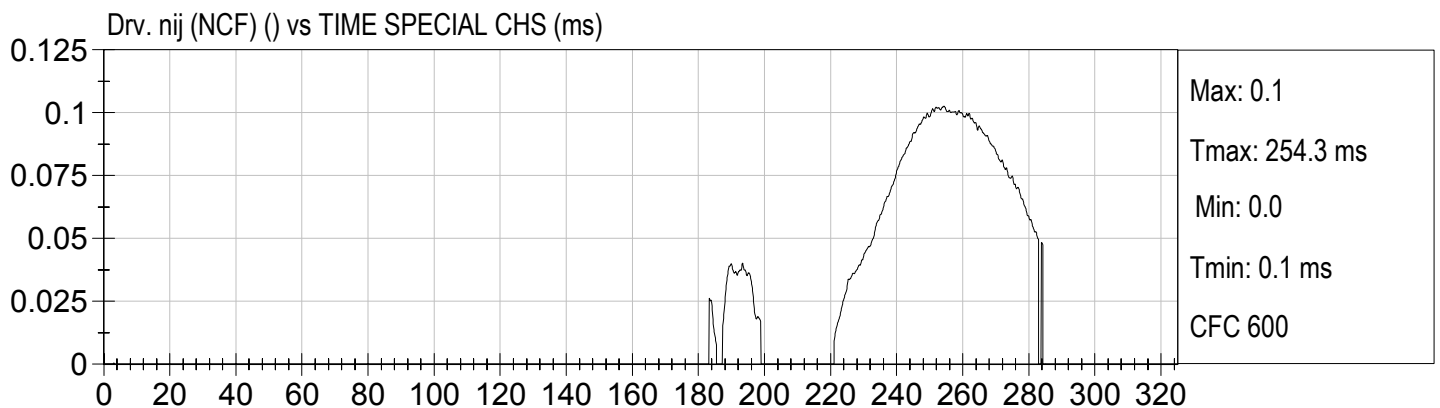
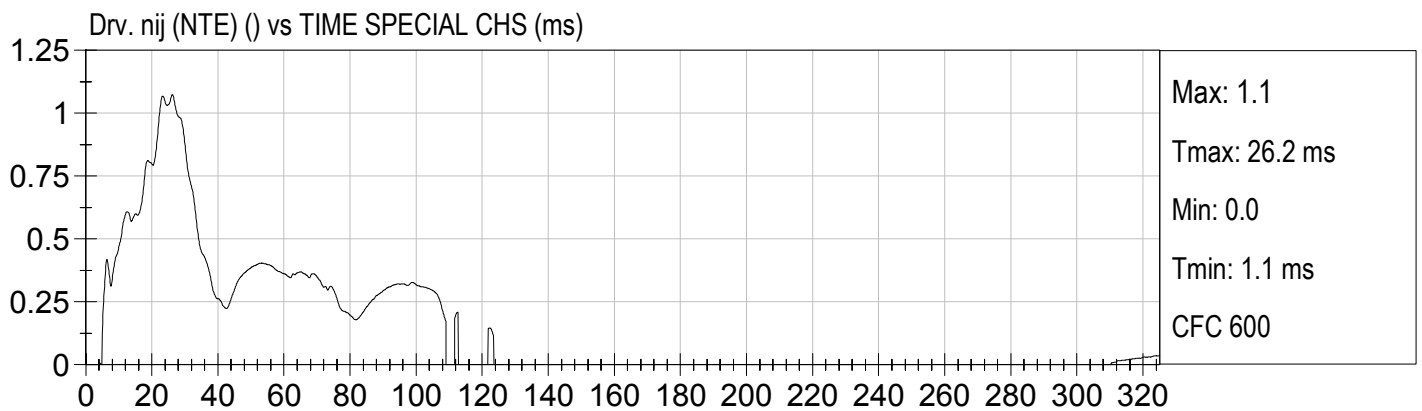
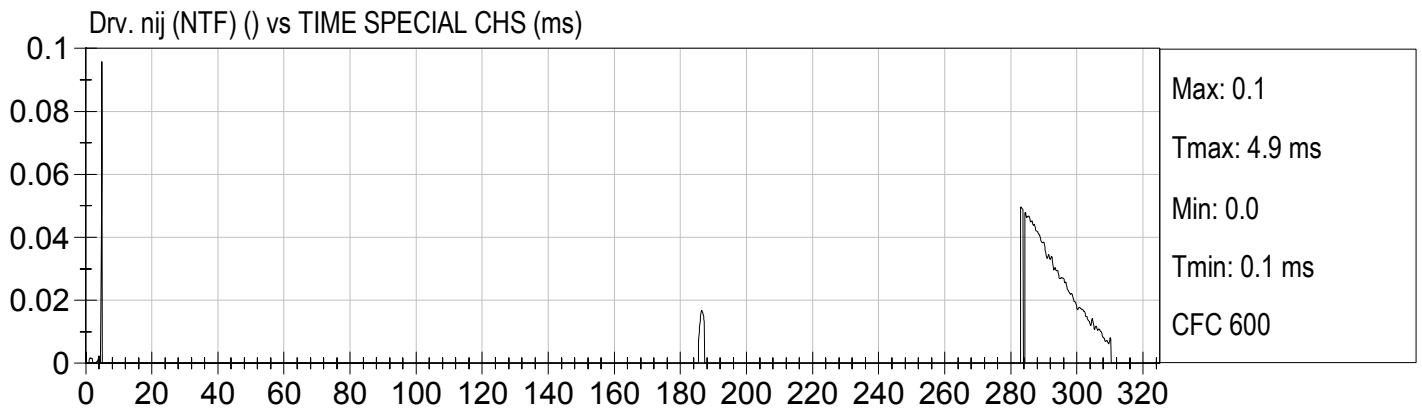
FIRE VOLTAGE #2 (Volts) vs TIME (ms)



FIRE CURRENT #2 (Amps) vs TIME (ms)

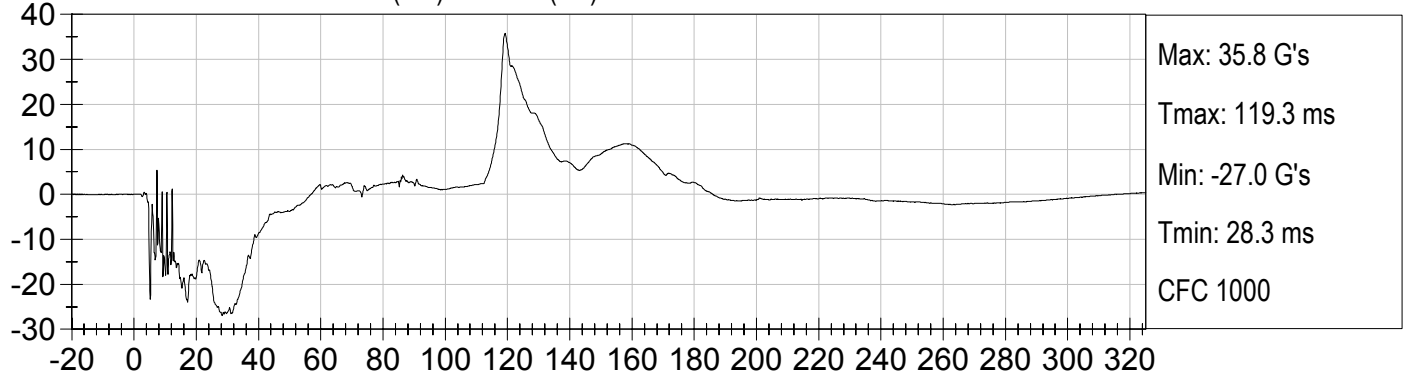




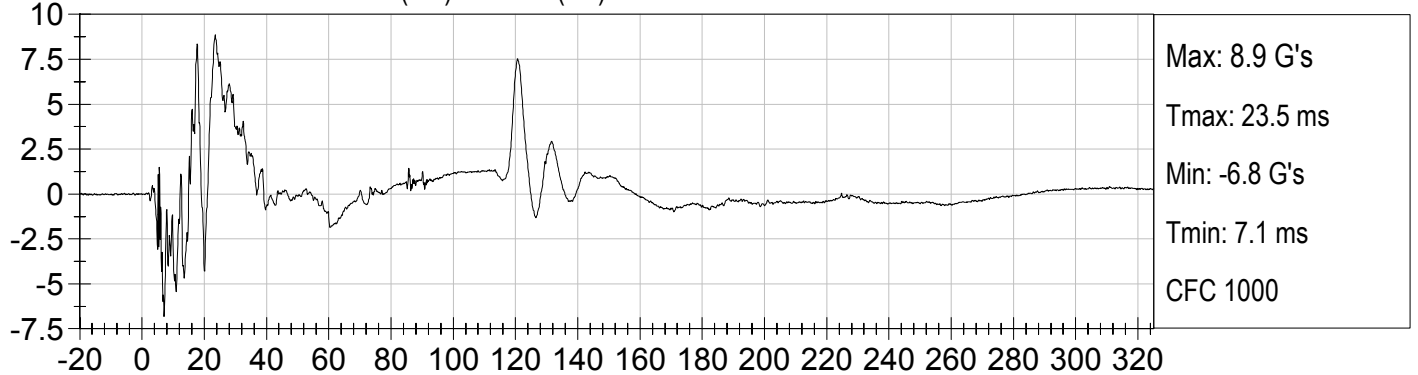




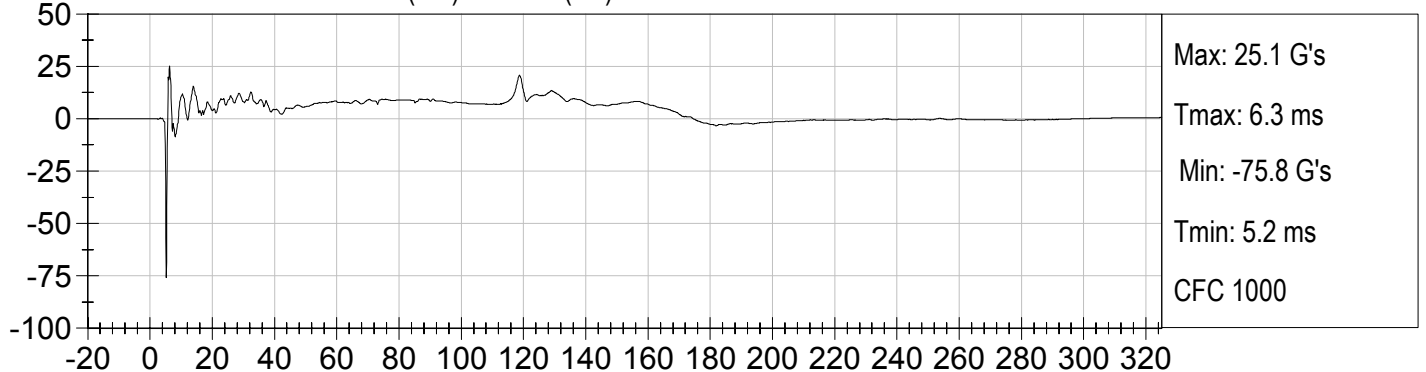
5TH FEM. DRIVER HEAD X (G's) vs TIME (ms)



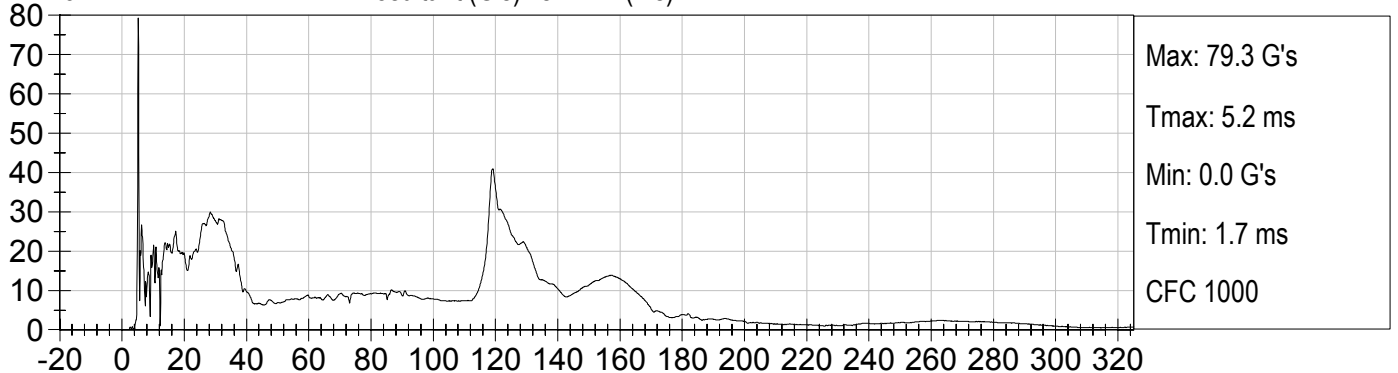
5TH FEM. DRIVER HEAD Y (G's) vs TIME (ms)

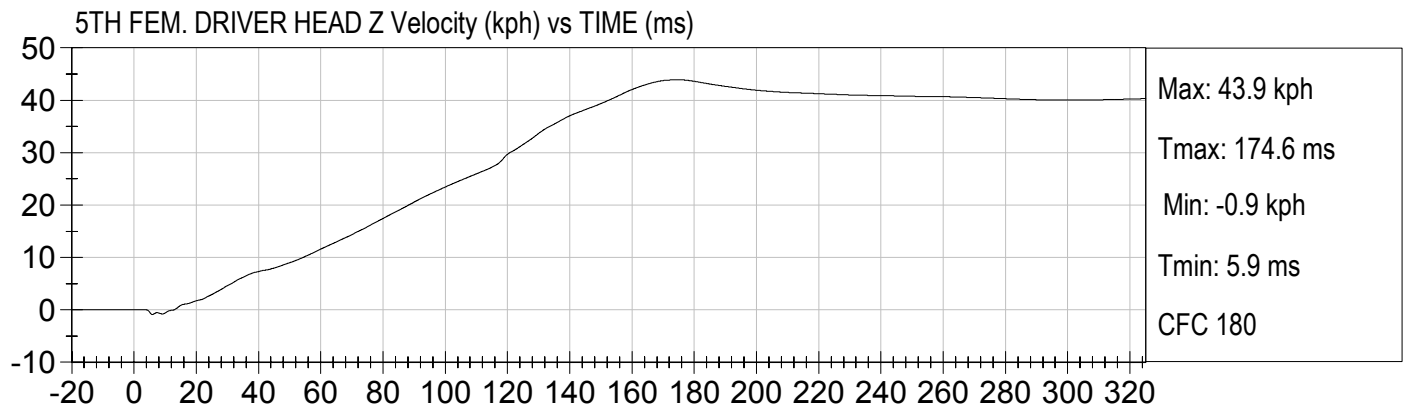
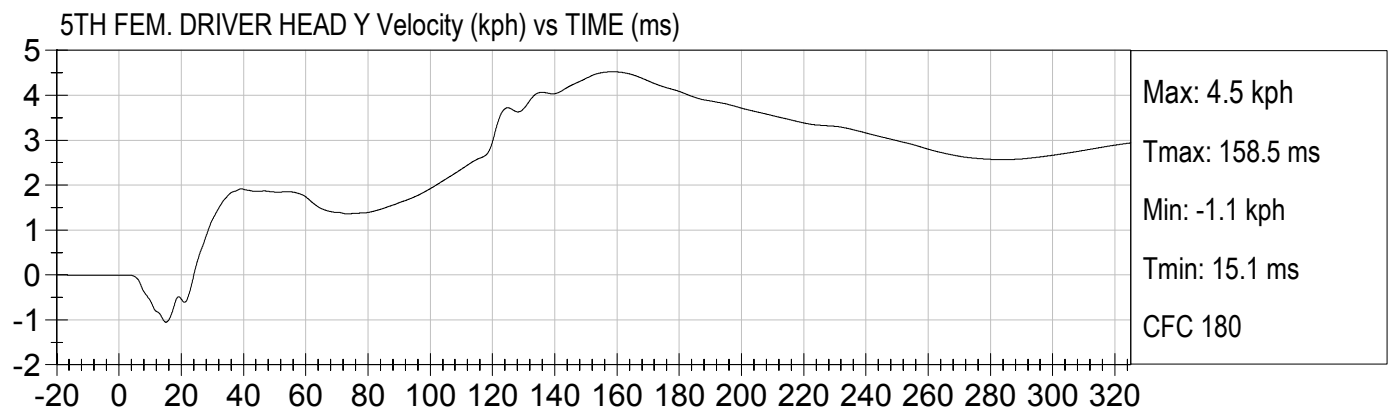
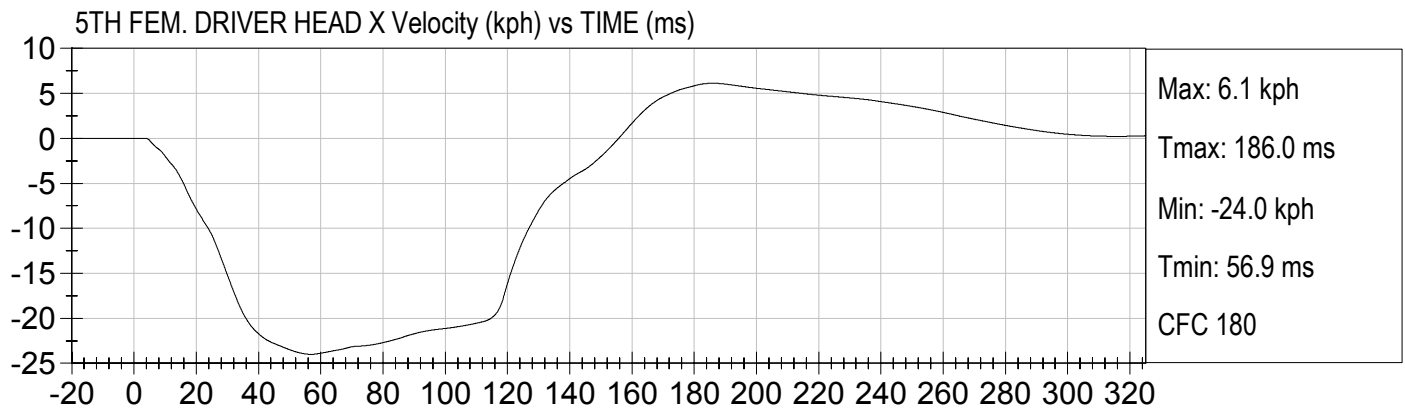


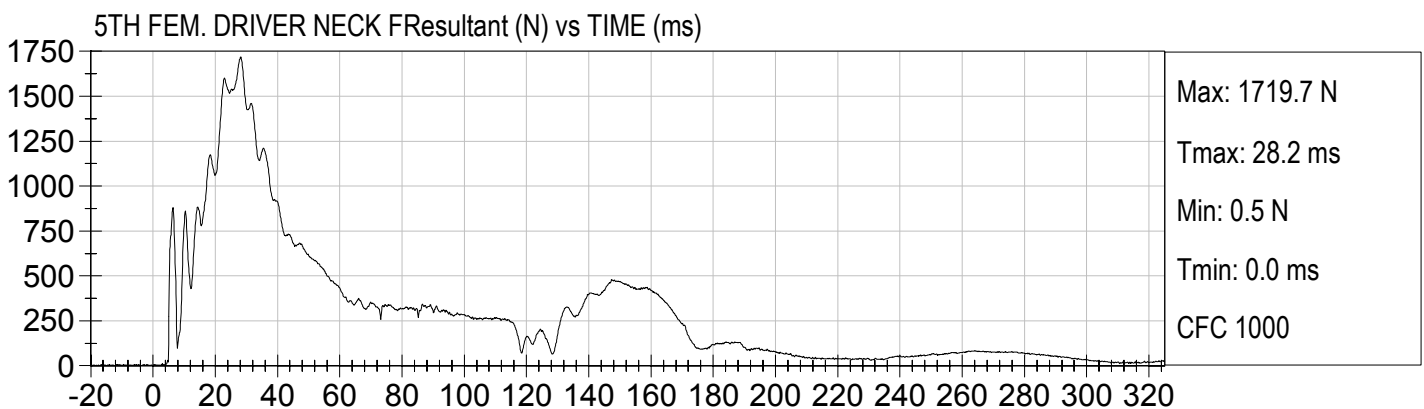
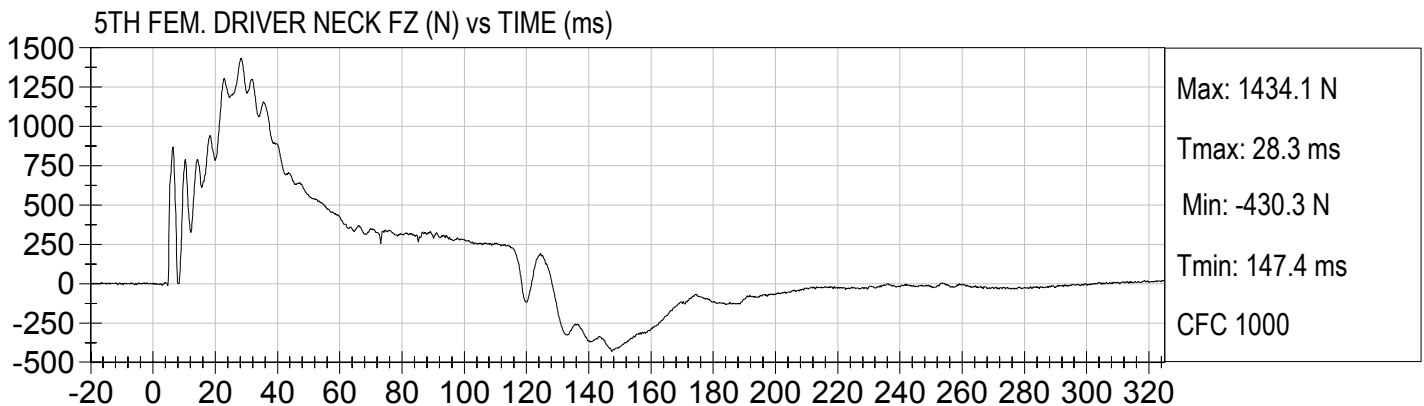
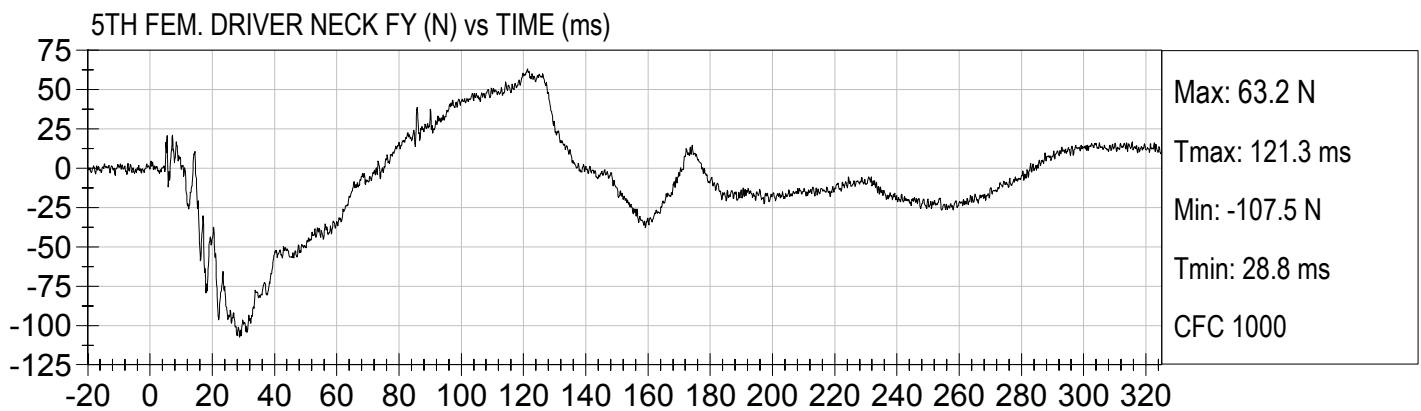
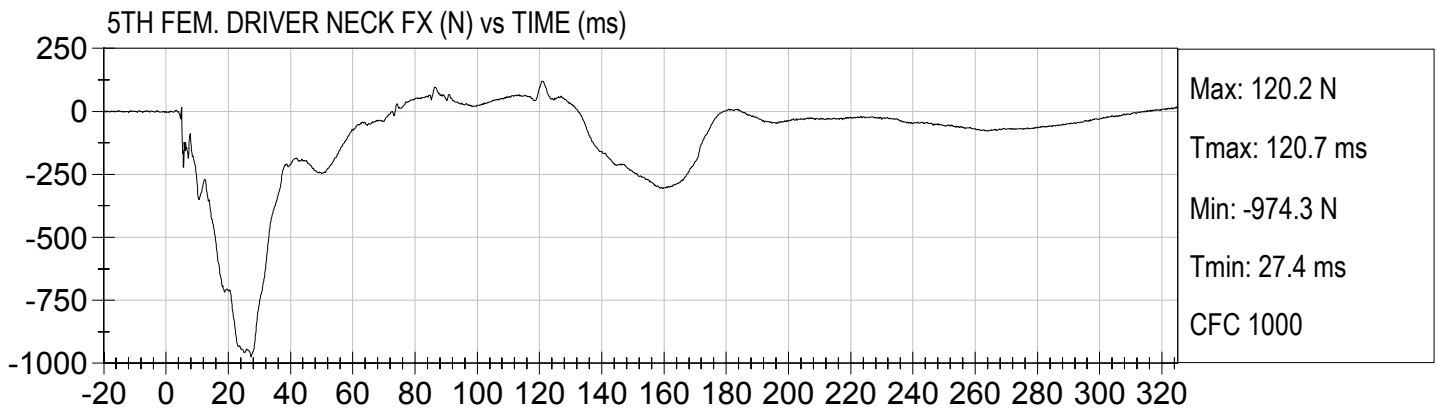
5TH FEM. DRIVER HEAD Z (G's) vs TIME (ms)

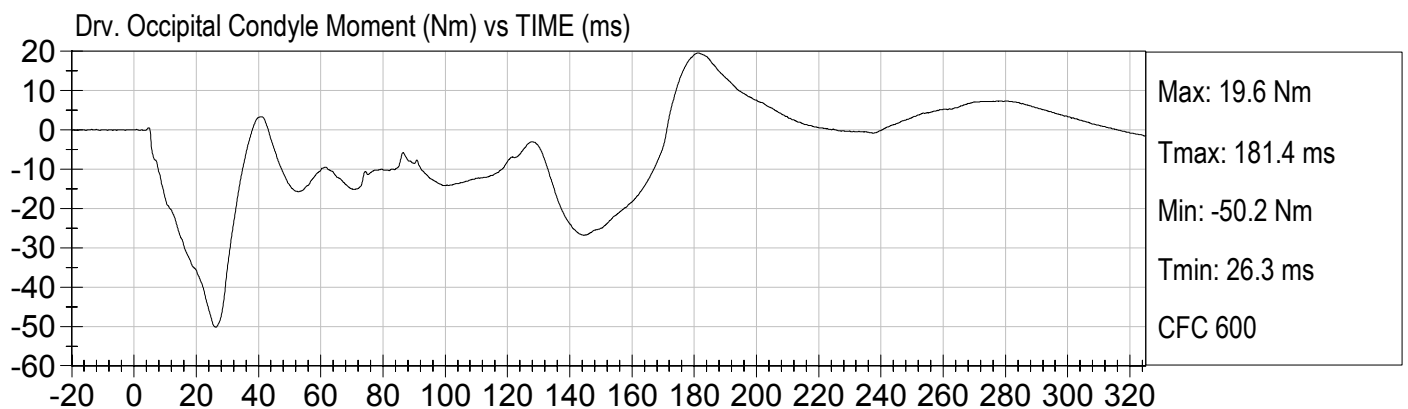
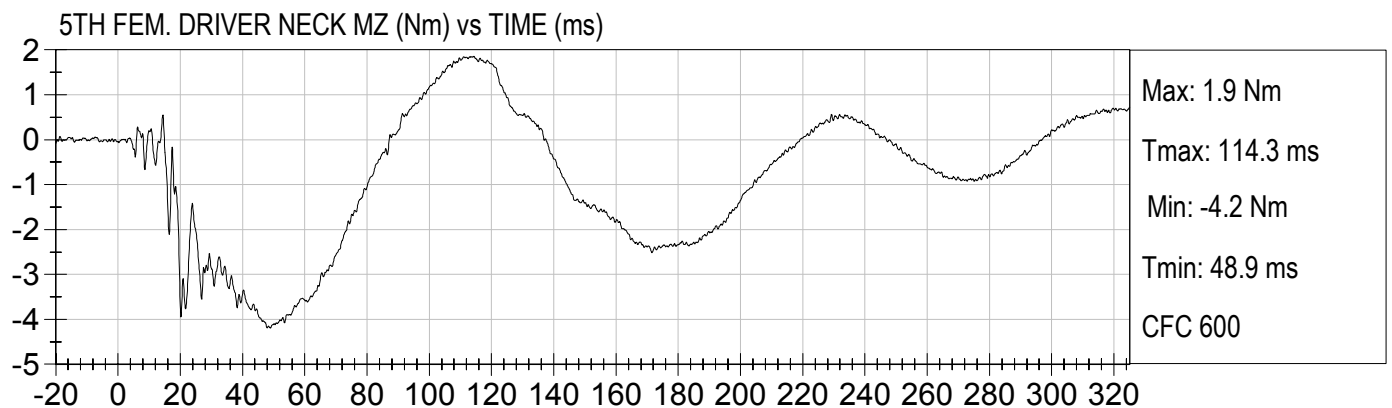
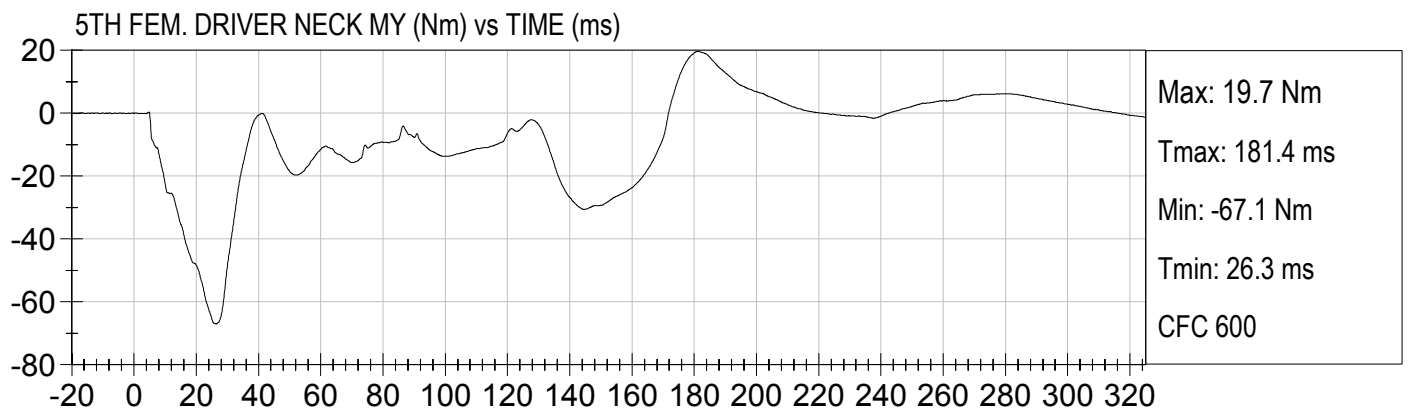
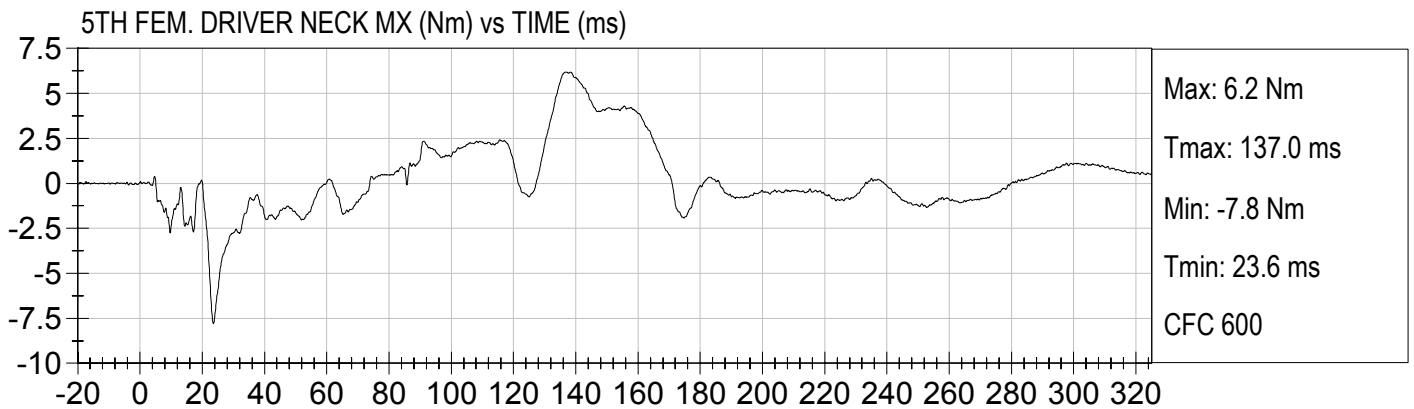


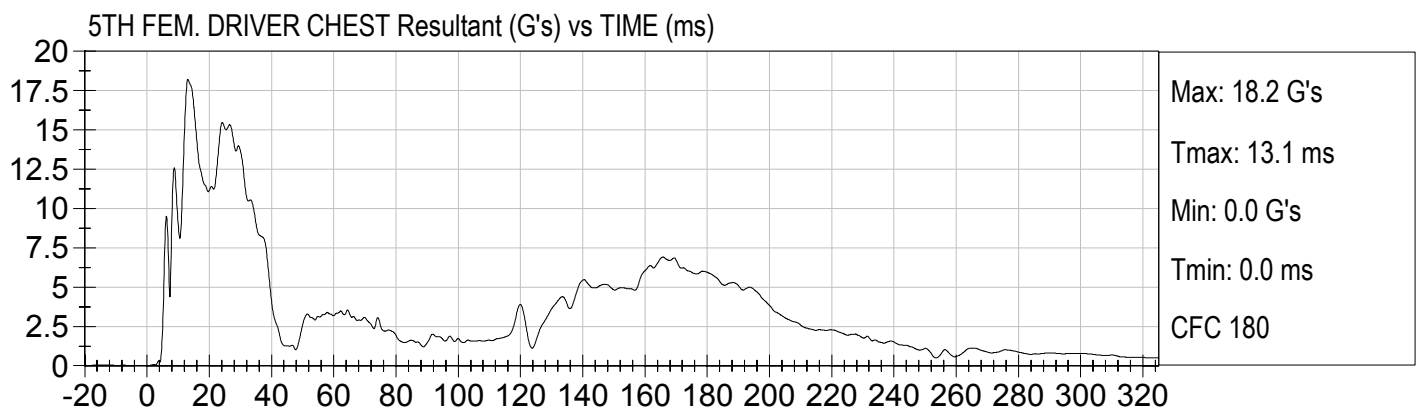
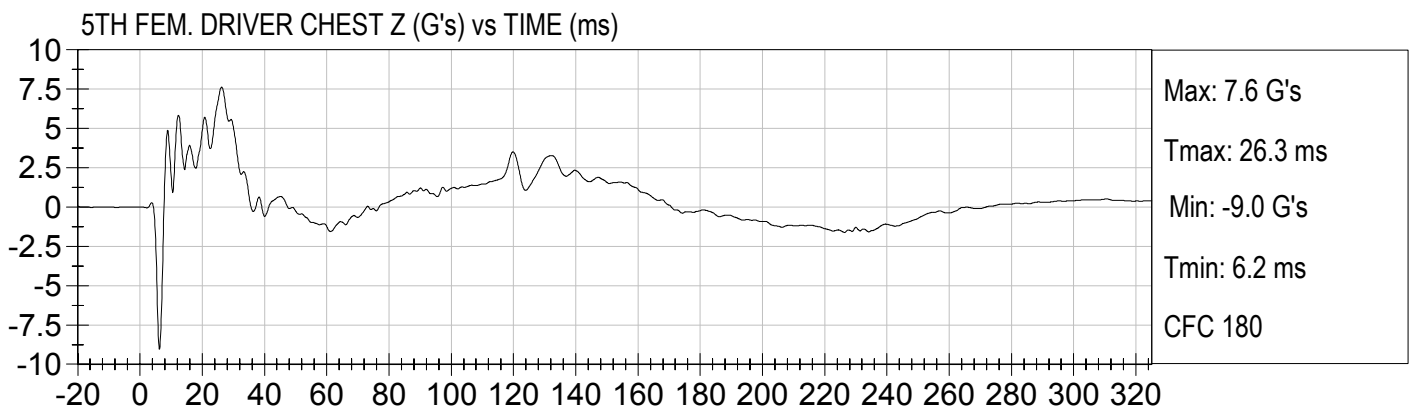
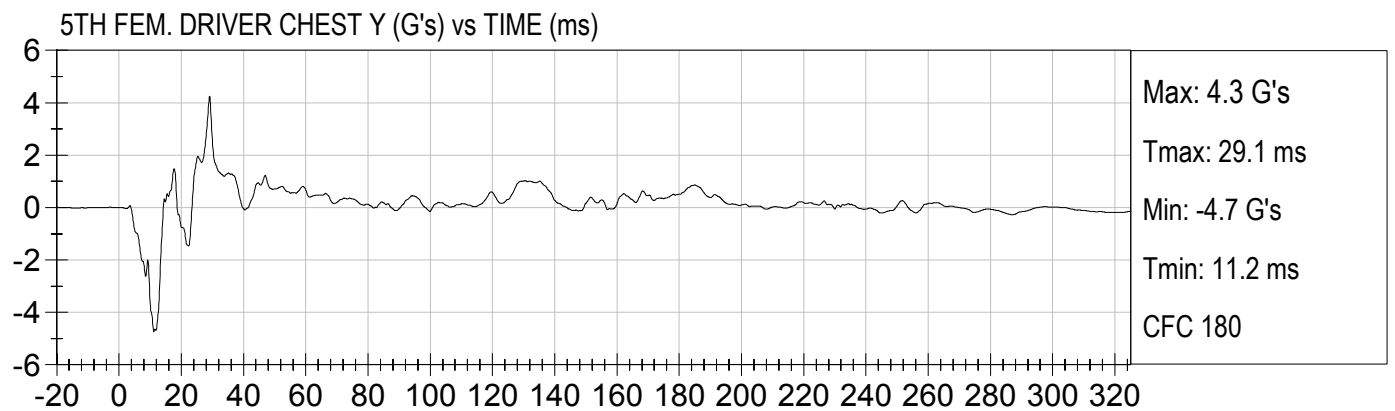
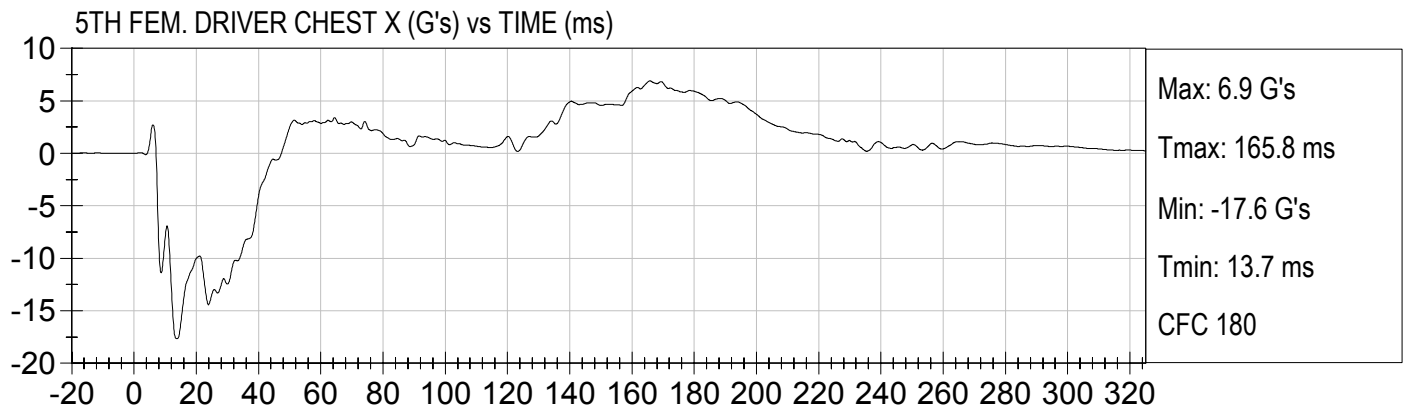
5TH FEM. DRIVER HEAD Resultant (G's) vs TIME (ms)

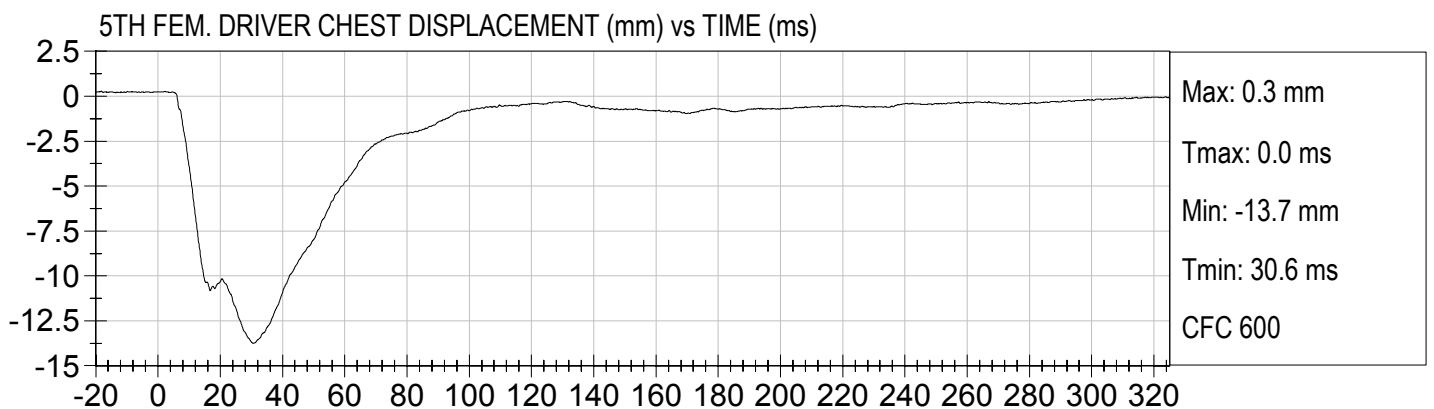
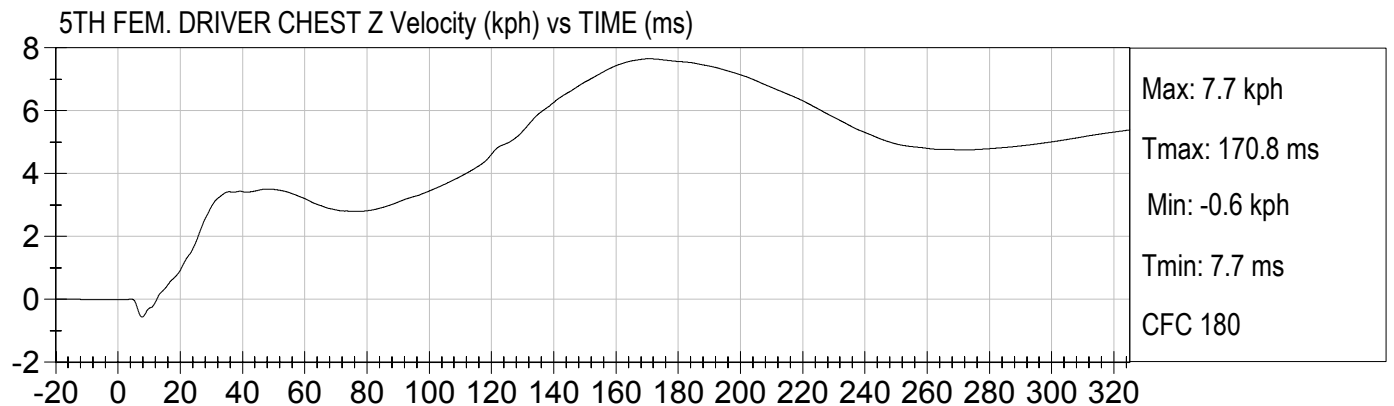
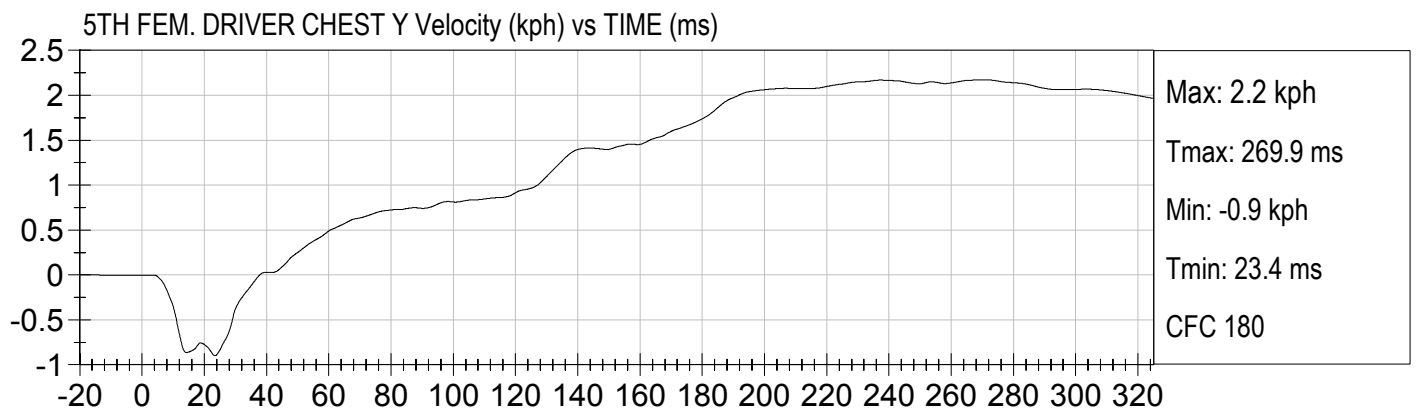
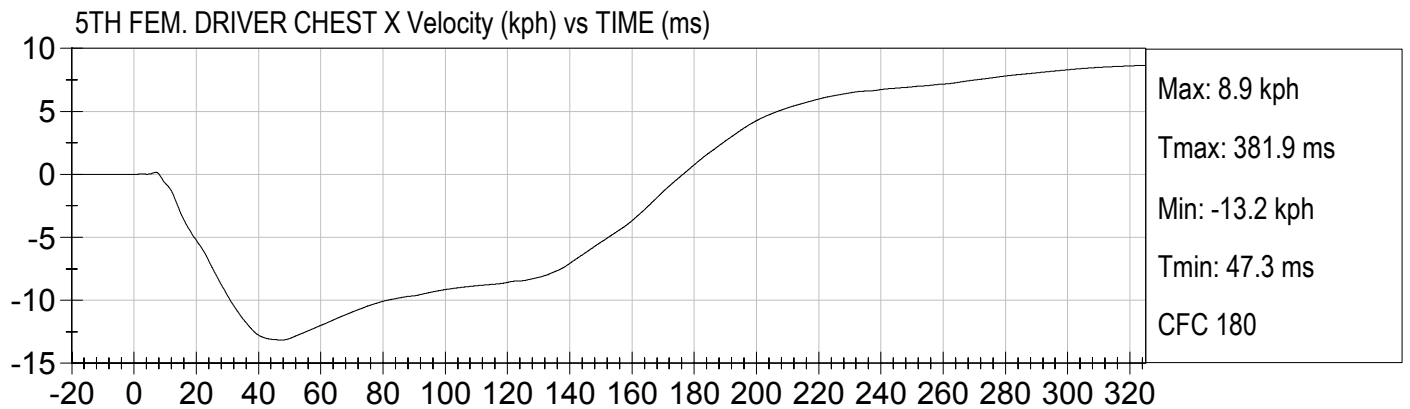


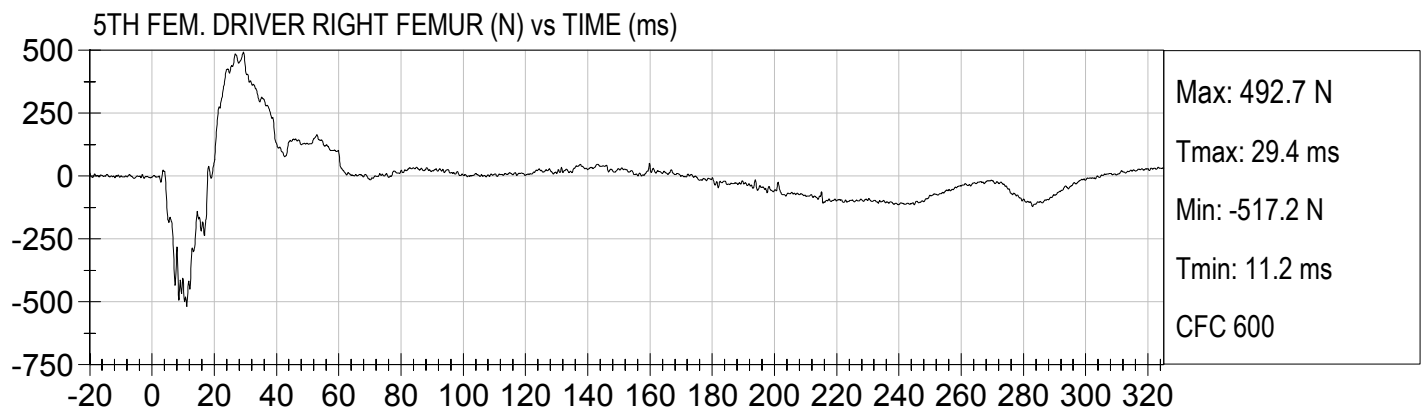
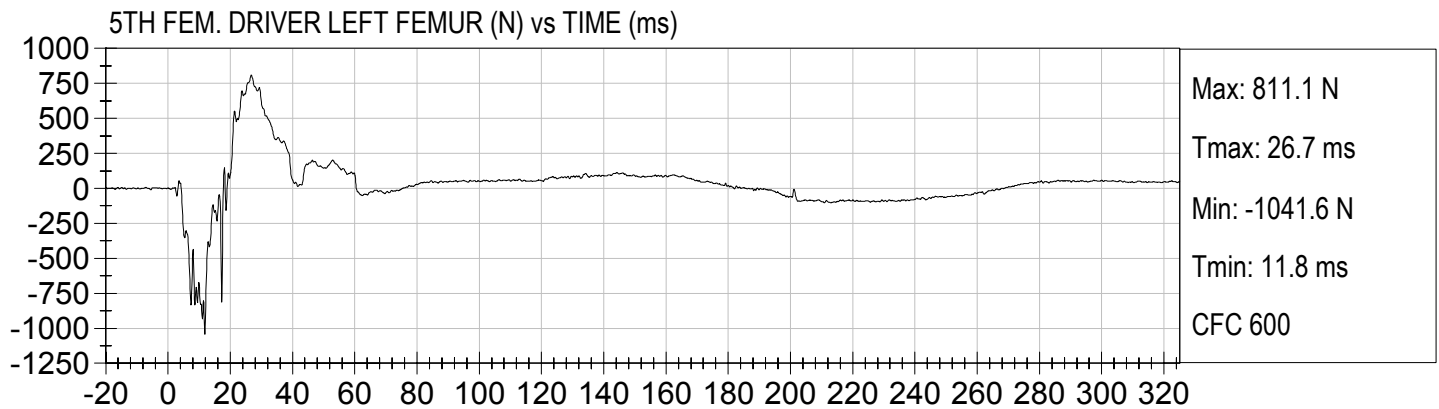








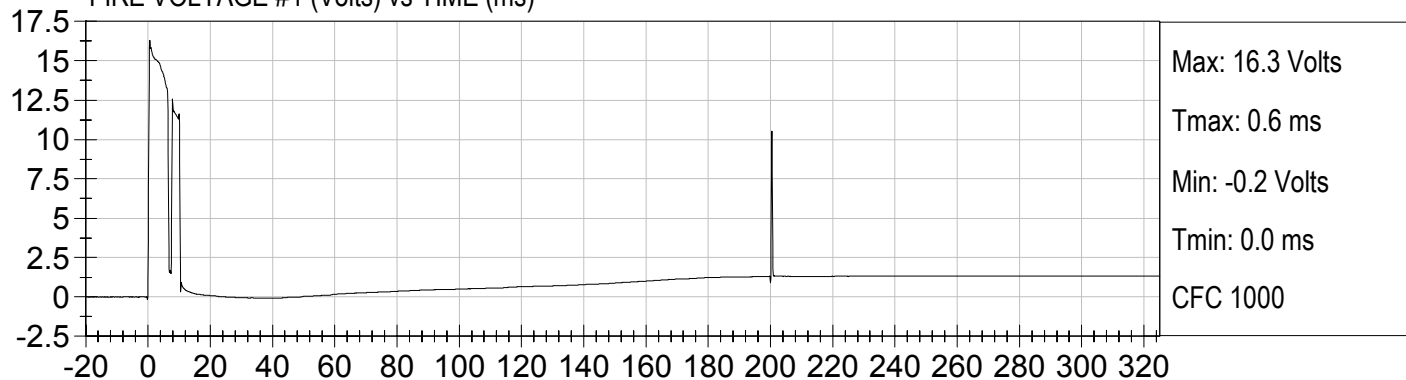




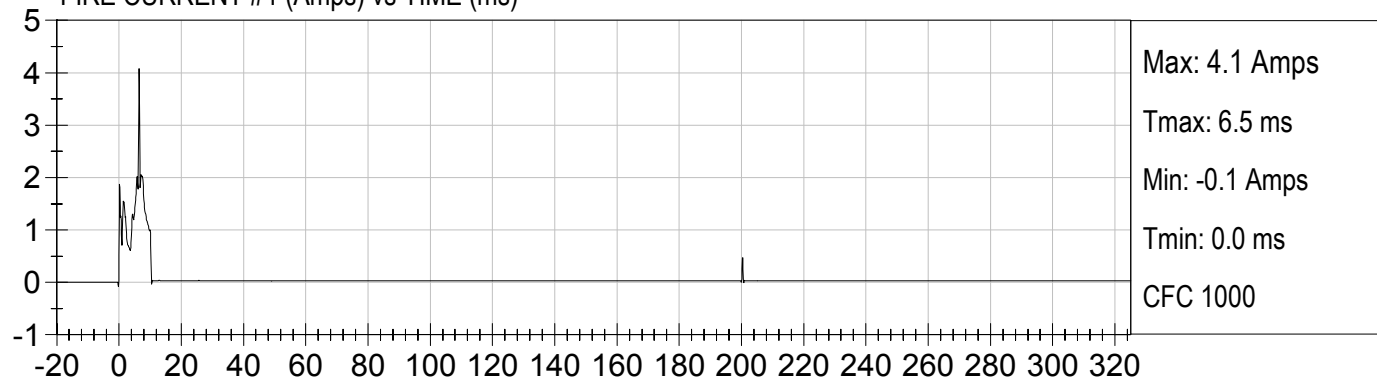




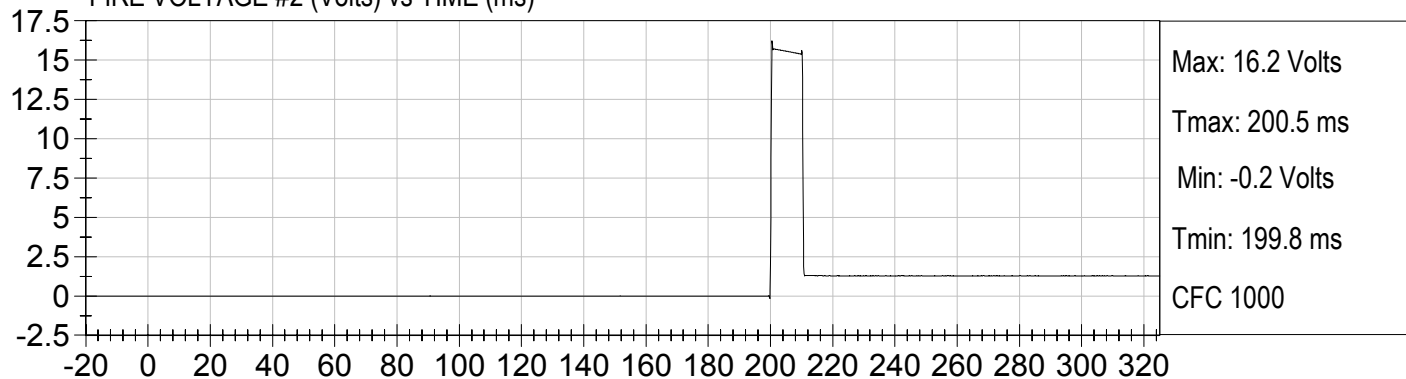
FIRE VOLTAGE #1 (Volts) vs TIME (ms)



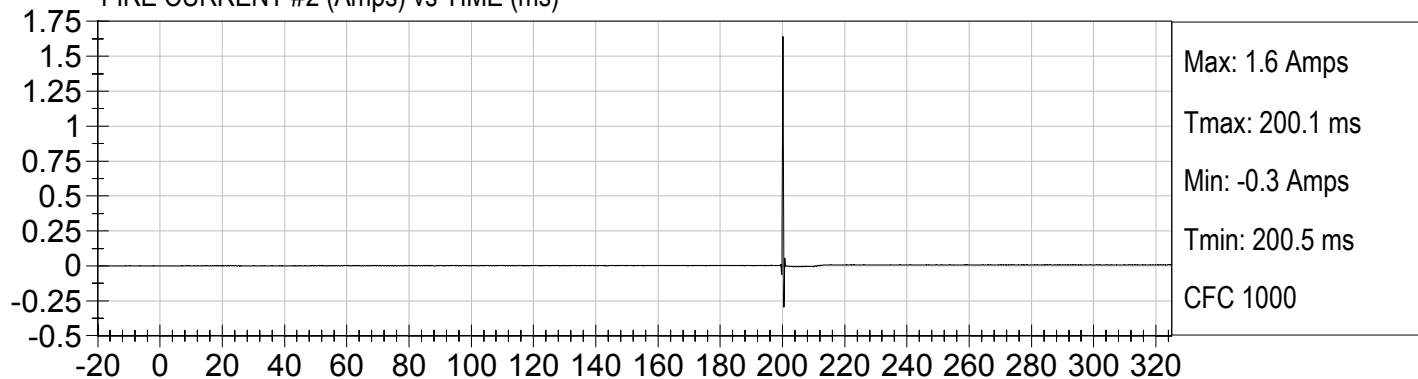
FIRE CURRENT #1 (Amps) vs TIME (ms)



FIRE VOLTAGE #2 (Volts) vs TIME (ms)

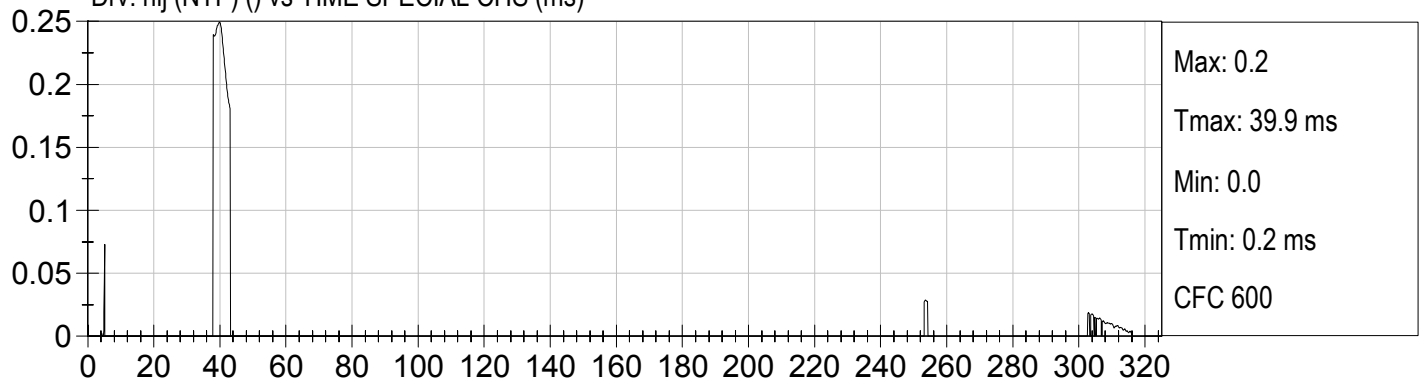


FIRE CURRENT #2 (Amps) vs TIME (ms)

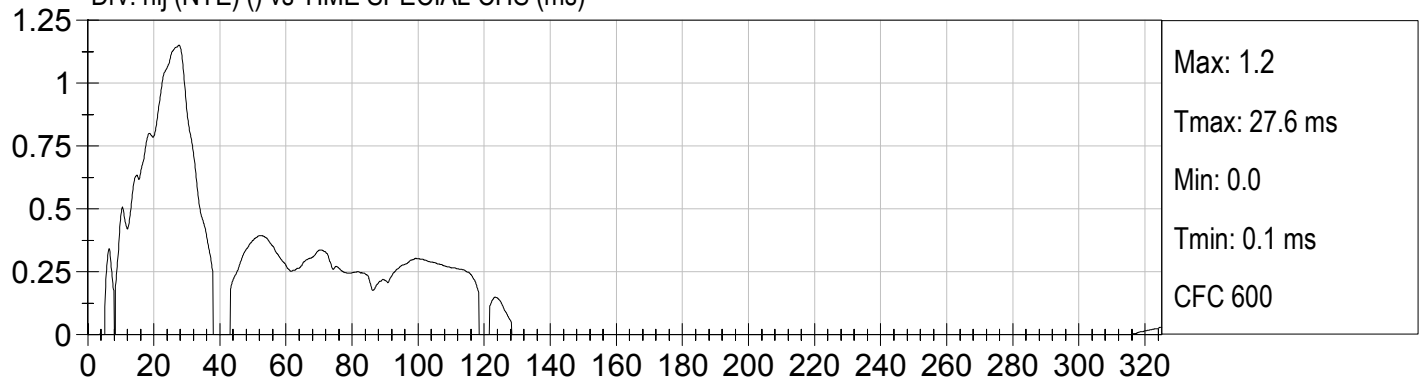




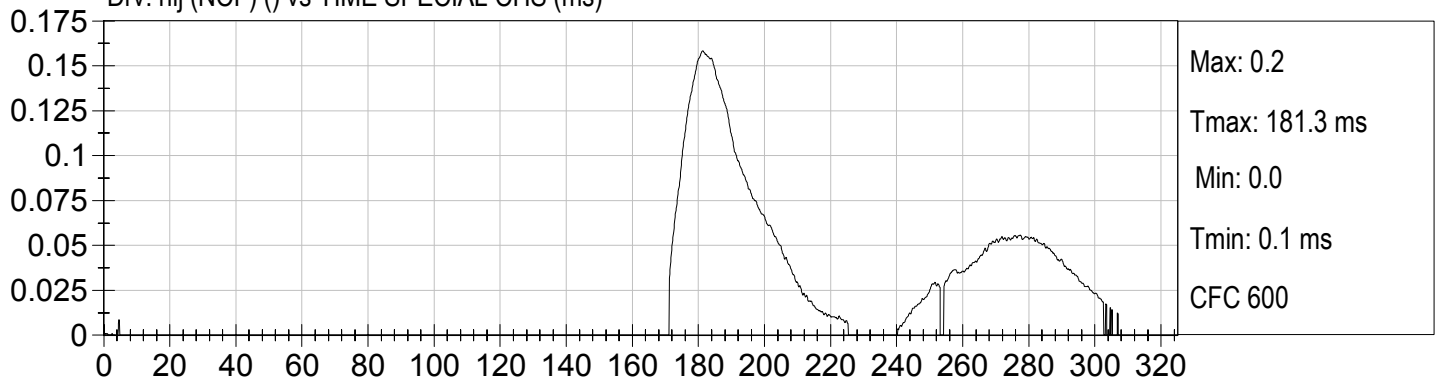
Drv. nij (NTF) ( ) vs TIME SPECIAL CHS (ms)



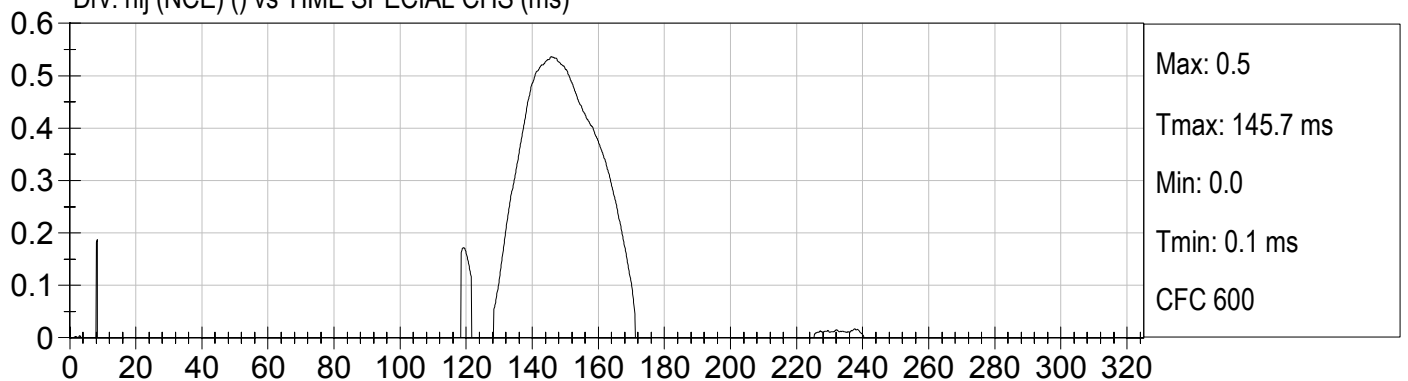
Drv. nij (NTE) ( ) vs TIME SPECIAL CHS (ms)



Drv. nij (NCF) ( ) vs TIME SPECIAL CHS (ms)

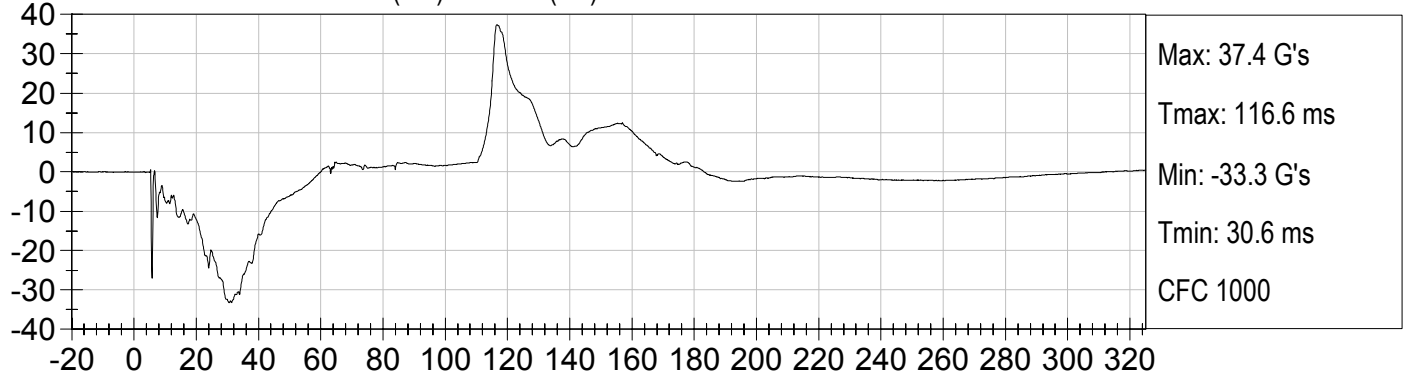


Drv. nij (NCE) ( ) vs TIME SPECIAL CHS (ms)

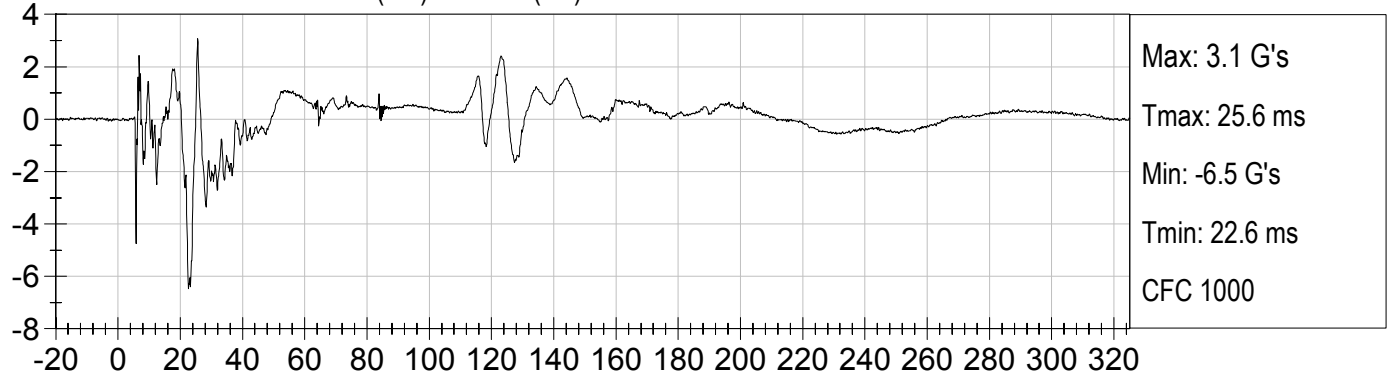




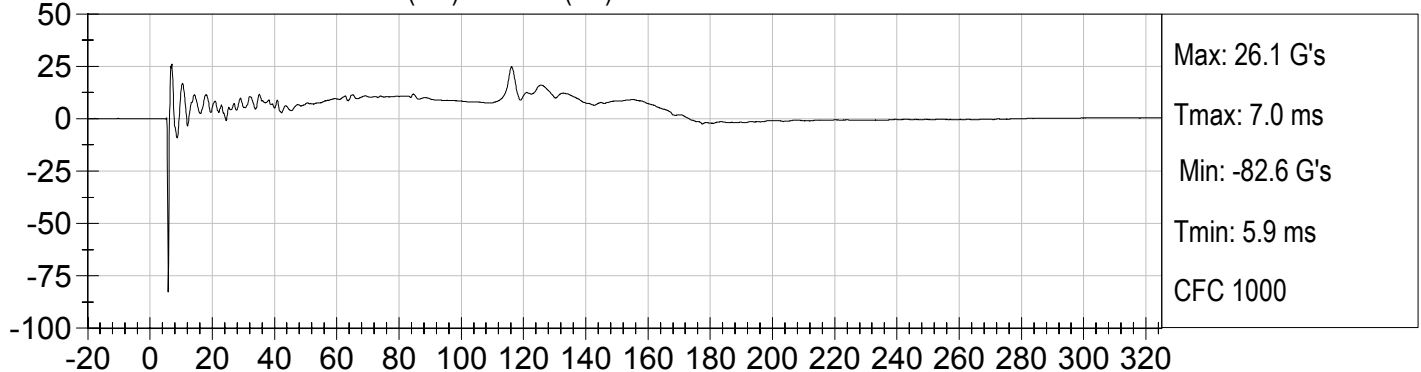
5TH FEM. DRIVER HEAD X (G's) vs TIME (ms)



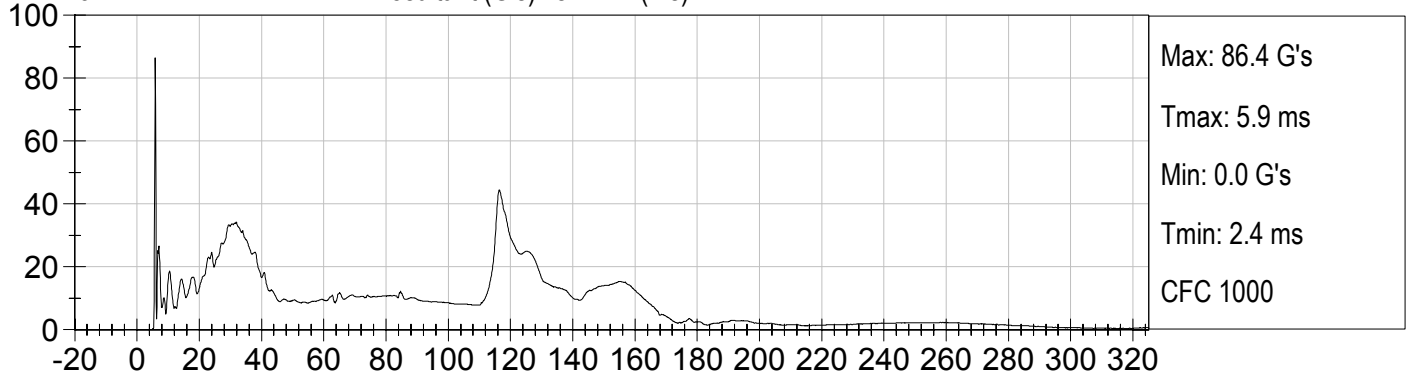
5TH FEM. DRIVER HEAD Y (G's) vs TIME (ms)

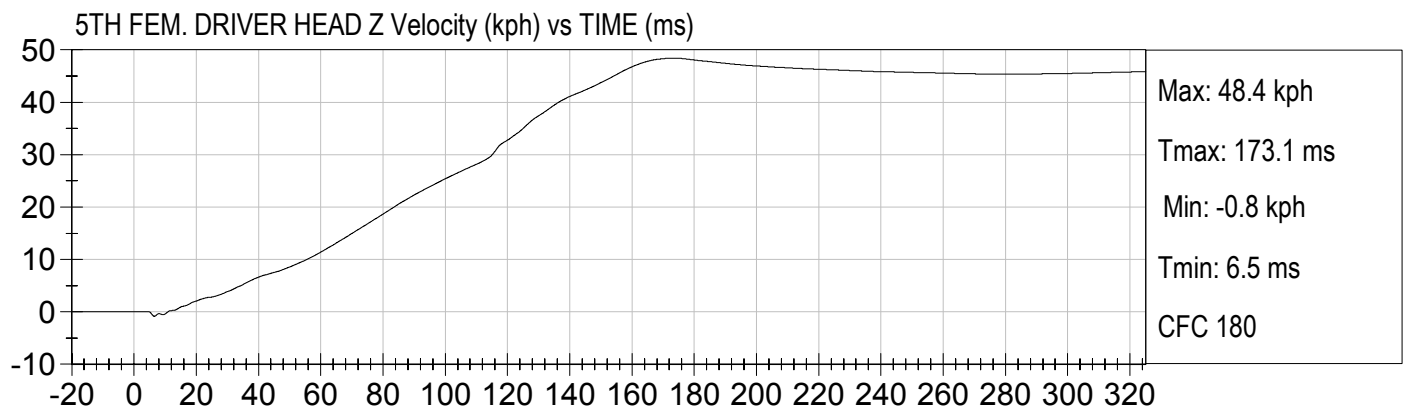
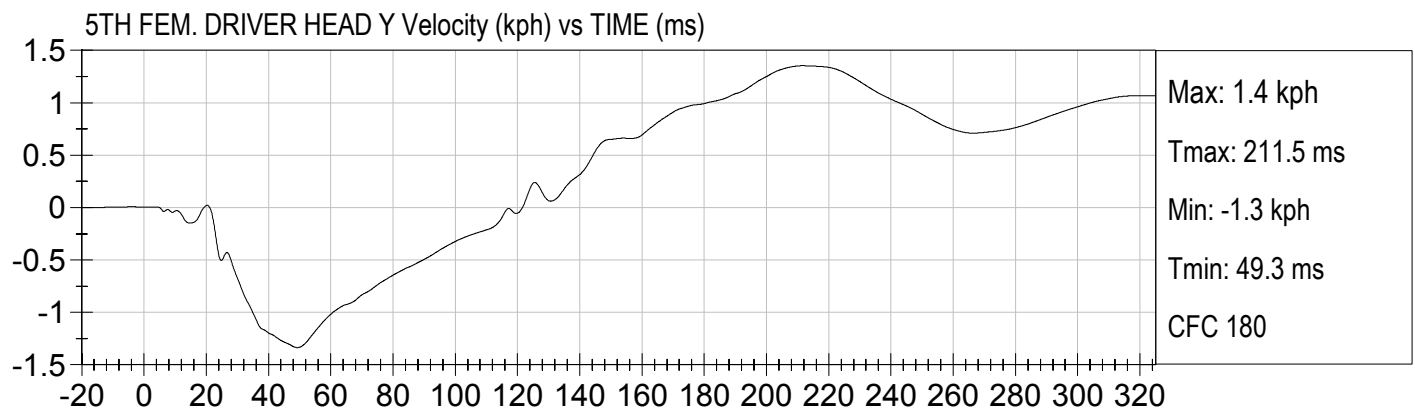
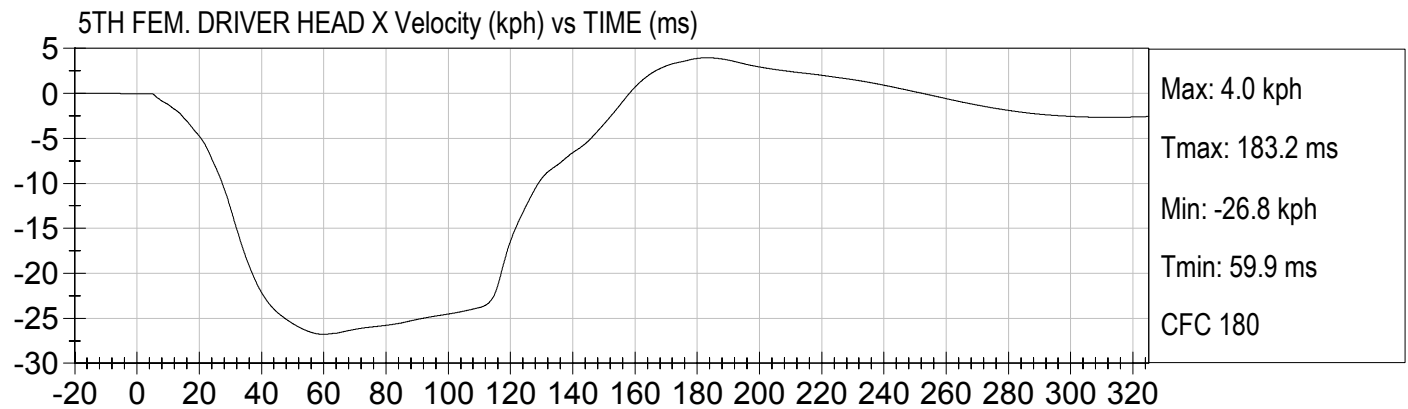


5TH FEM. DRIVER HEAD Z (G's) vs TIME (ms)



5TH FEM. DRIVER HEAD Resultant (G's) vs TIME (ms)





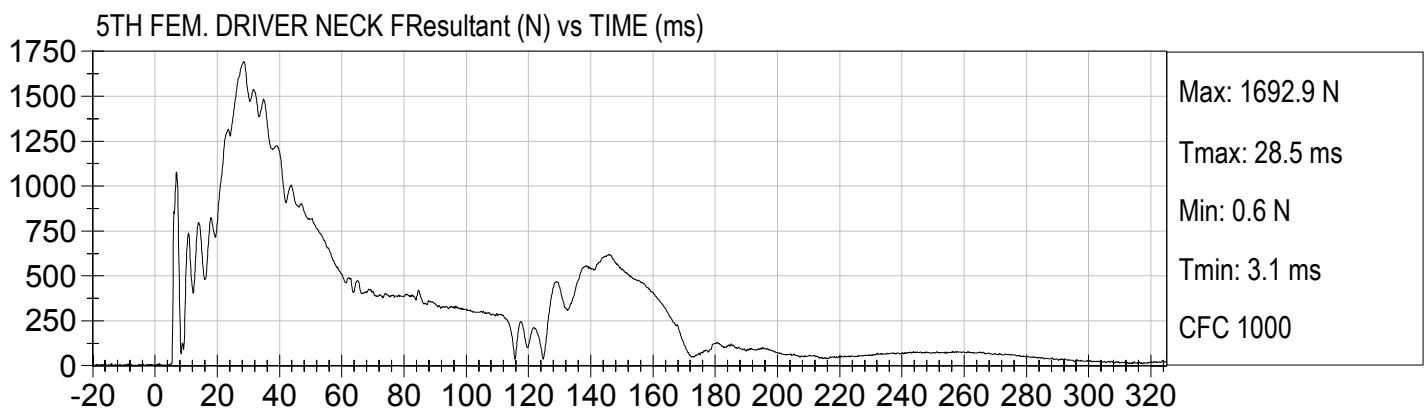
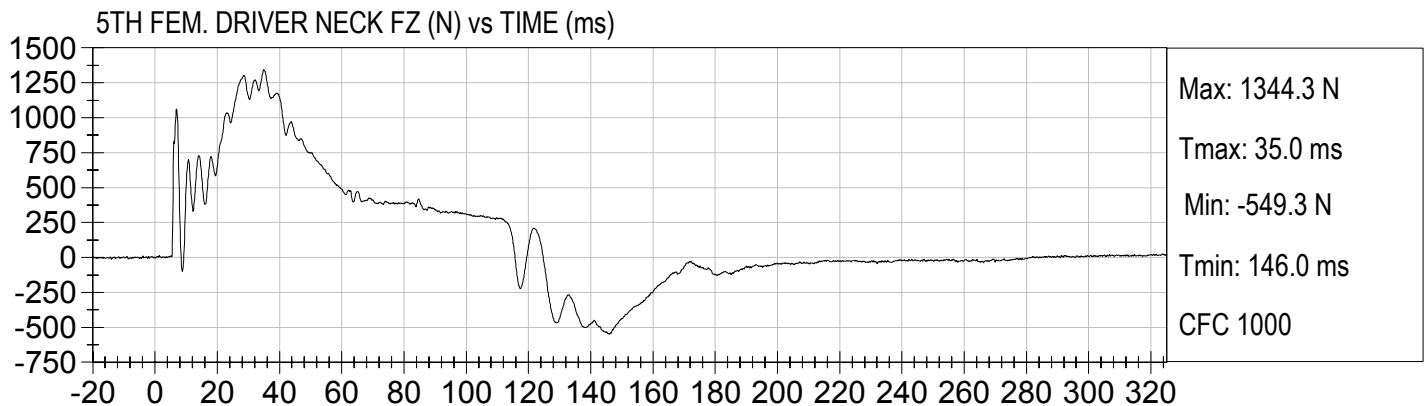
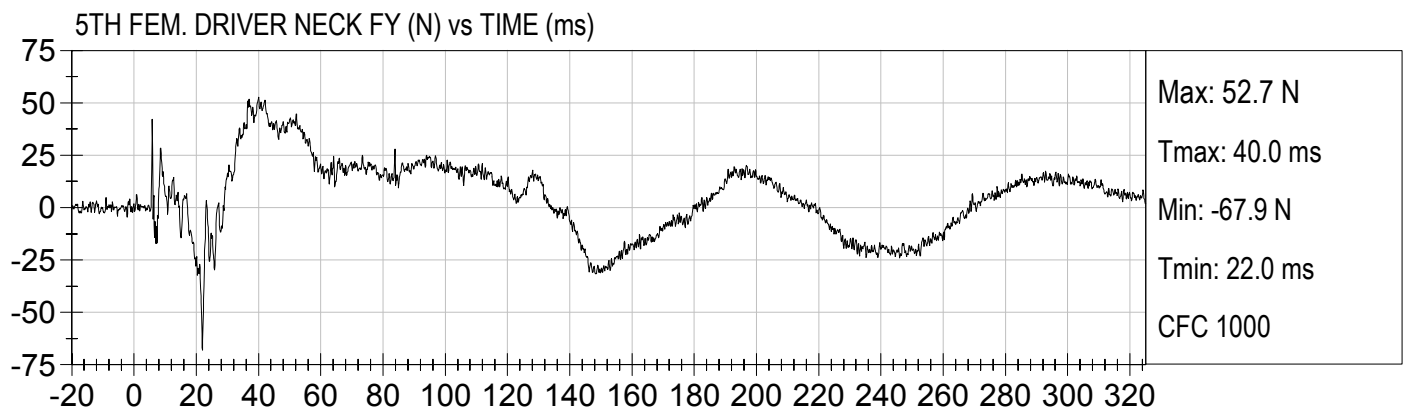
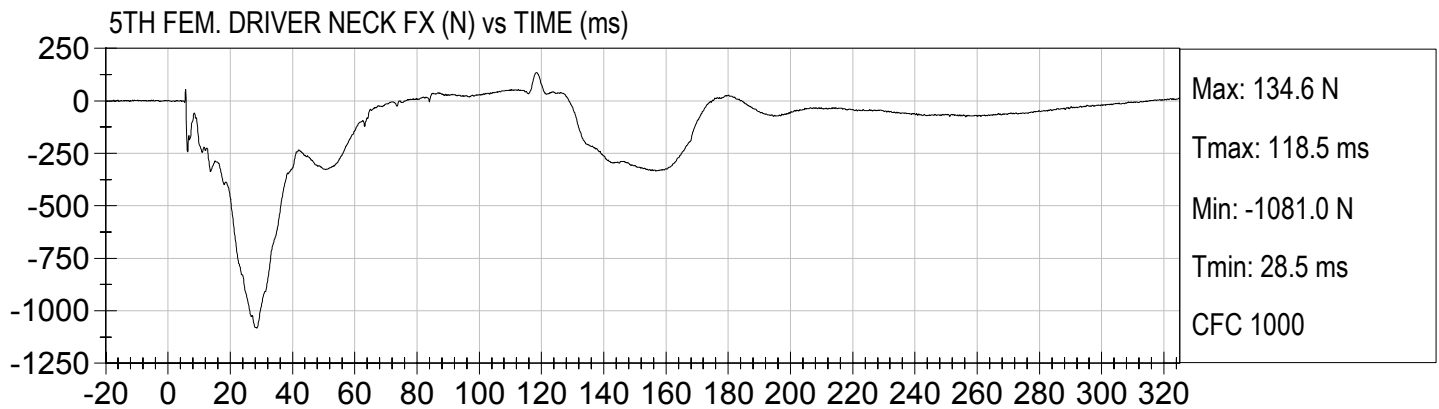


LOW RISK DEPLOYMENT

2005 Mercedes Benz C230 (C50500) (5TH P1 Trial 4)

Test Date: 07/07/05

Speed: 0.0 mph ( 0.0 km/h)





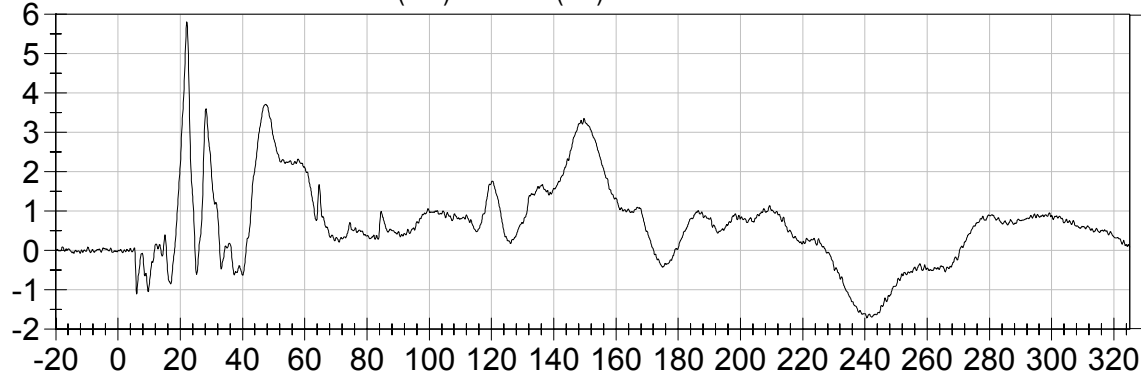
LOW RISK DEPLOYMENT

2005 Mercedes Benz C230 (C50500) (5TH P1 Trial 4)

Test Date: 07/07/05

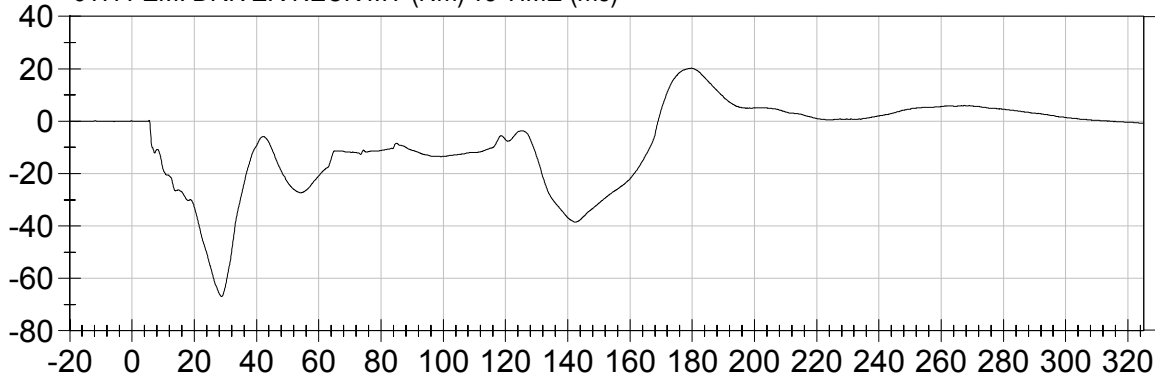
Speed: 0.0 mph ( 0.0 km/h)

5TH FEM. DRIVER NECK MX (Nm) vs TIME (ms)



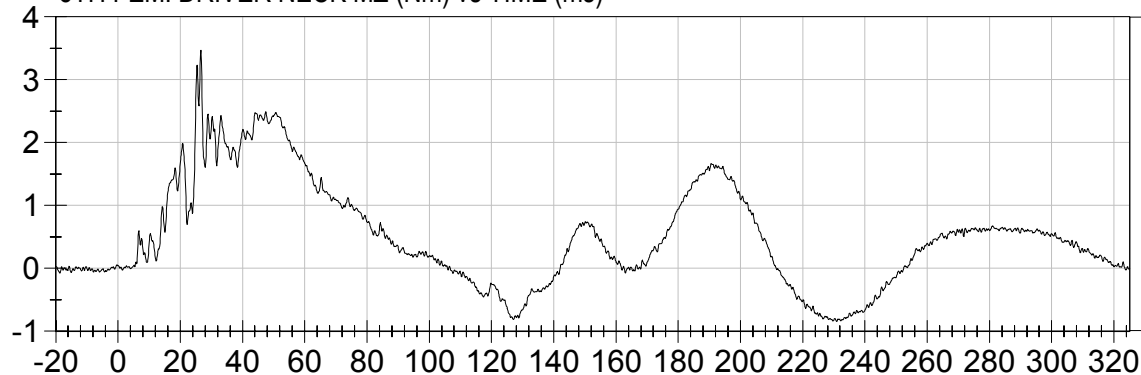
Max: 5.8 Nm  
Tmax: 22.1 ms  
Min: -1.7 Nm  
Tmin: 240.6 ms  
CFC 600

5TH FEM. DRIVER NECK MY (Nm) vs TIME (ms)



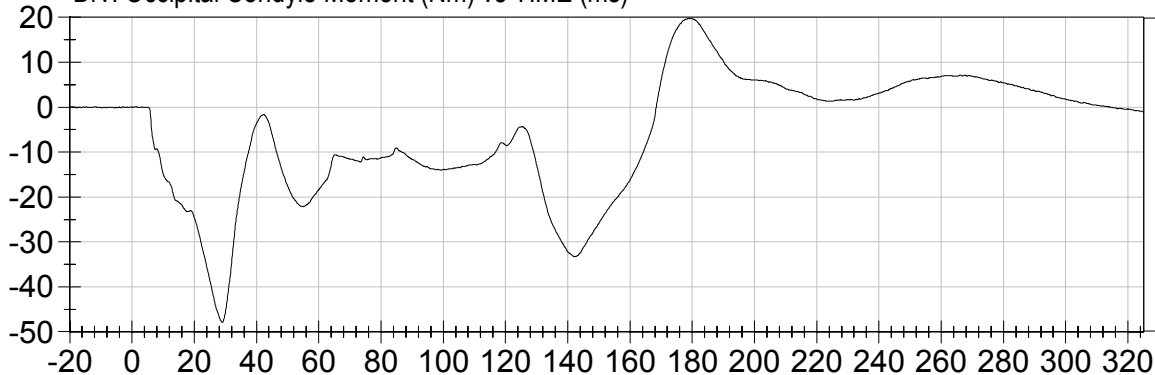
Max: 20.2 Nm  
Tmax: 179.7 ms  
Min: -66.9 Nm  
Tmin: 28.8 ms  
CFC 600

5TH FEM. DRIVER NECK MZ (Nm) vs TIME (ms)



Max: 3.5 Nm  
Tmax: 26.6 ms  
Min: -0.8 Nm  
Tmin: 230.9 ms  
CFC 600

Drv. Occipital Condyle Moment (Nm) vs TIME (ms)



Max: 19.8 Nm  
Tmax: 179.7 ms  
Min: -47.9 Nm  
Tmin: 29.0 ms  
CFC 600

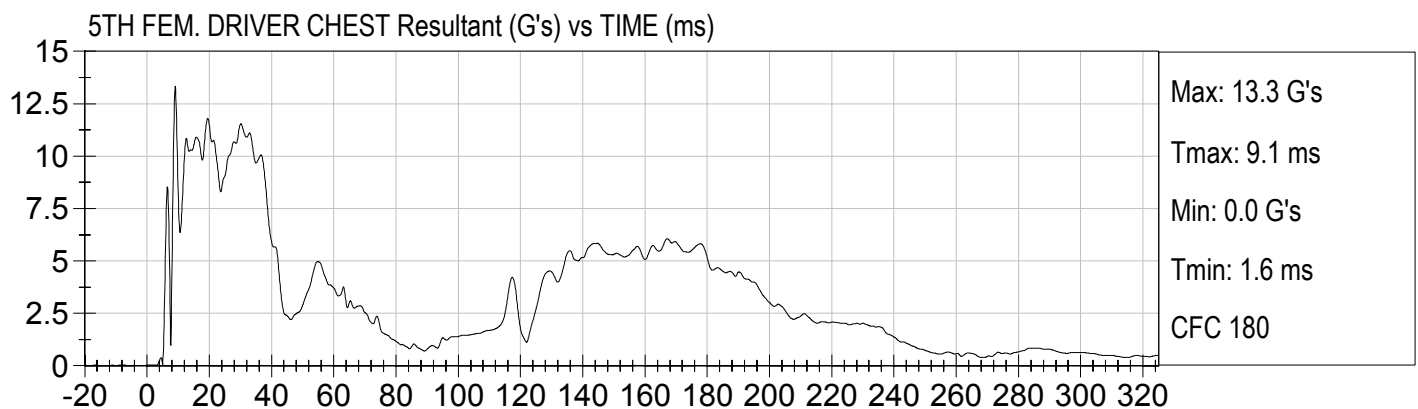
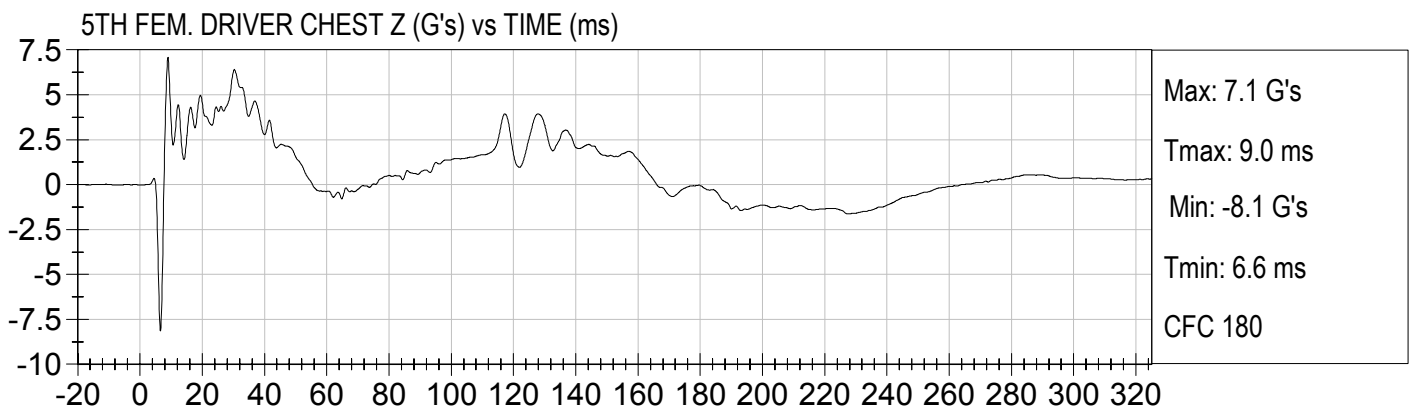
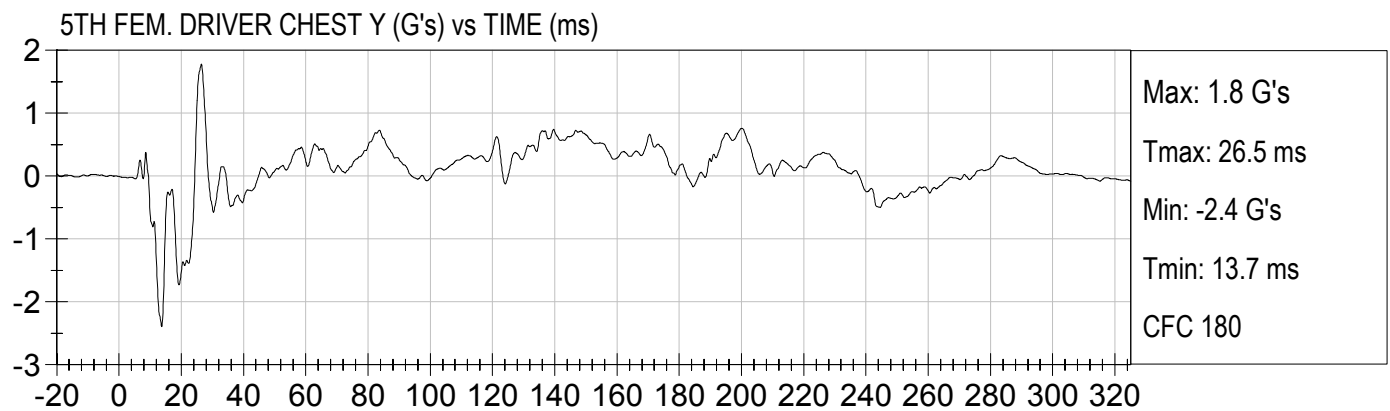
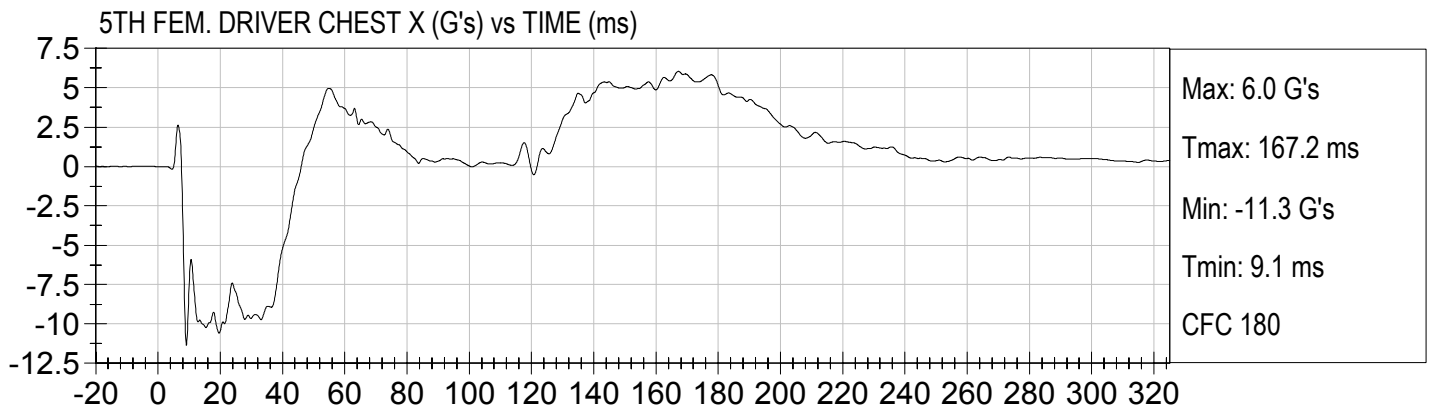


LOW RISK DEPLOYMENT

2005 Mercedes Benz C230 (C50500) (5TH P1 Trial 4)

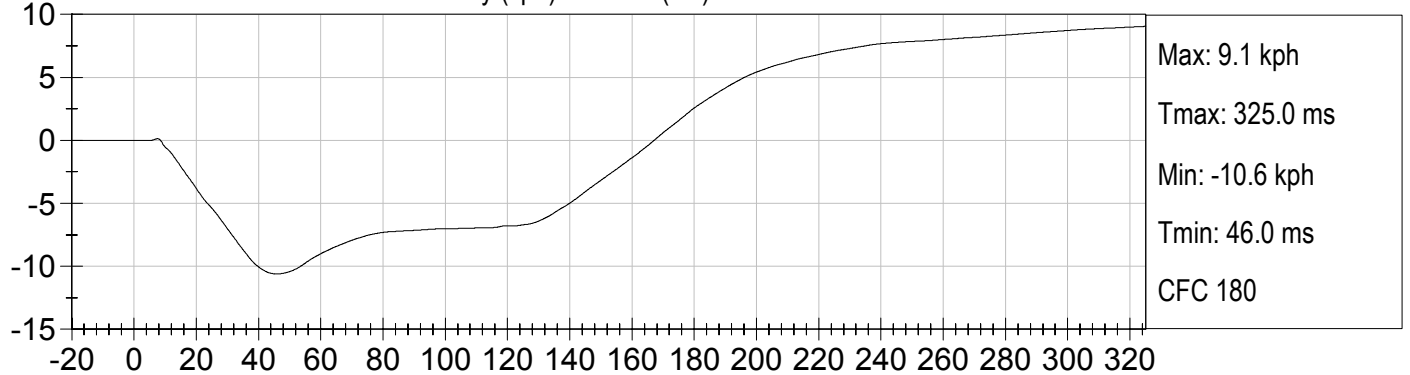
Test Date: 07/07/05

Speed: 0.0 mph ( 0.0 km/h)

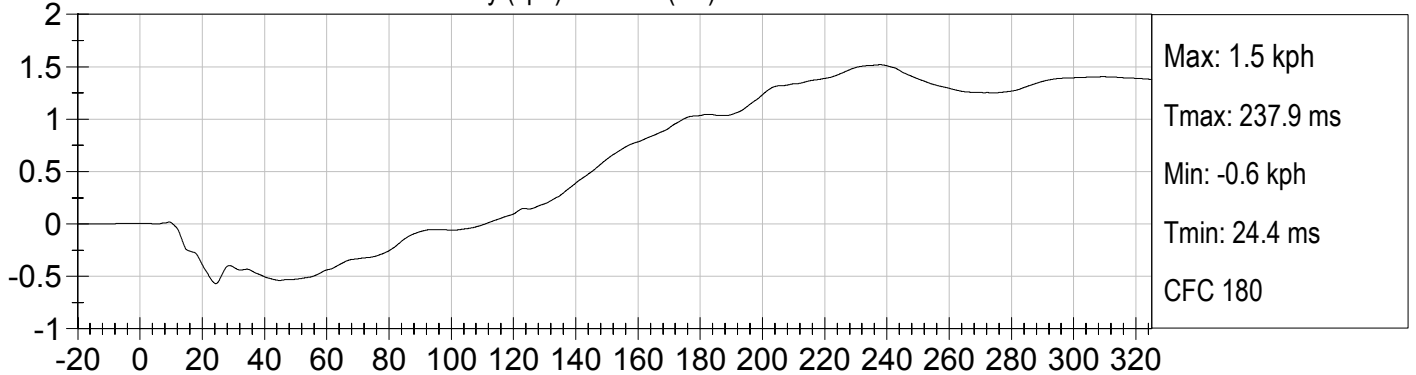




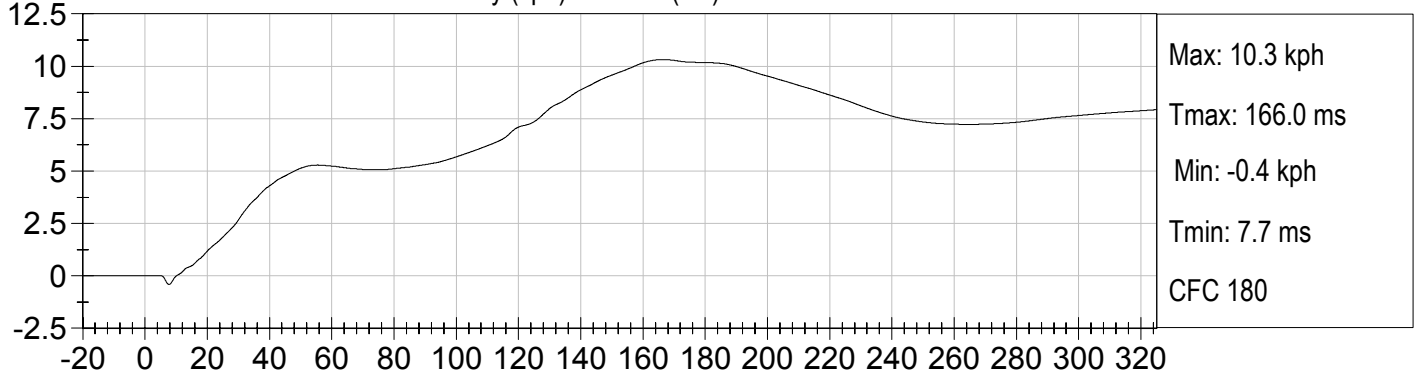
5TH FEM. DRIVER CHEST X Velocity (kph) vs TIME (ms)



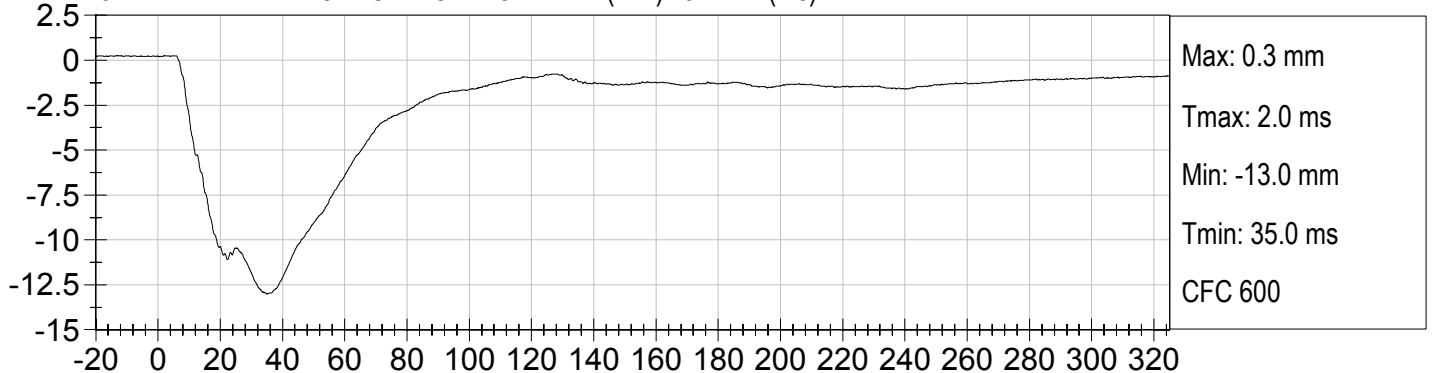
5TH FEM. DRIVER CHEST Y Velocity (kph) vs TIME (ms)



5TH FEM. DRIVER CHEST Z Velocity (kph) vs TIME (ms)



5TH FEM. DRIVER CHEST DISPLACEMENT (mm) vs TIME (ms)





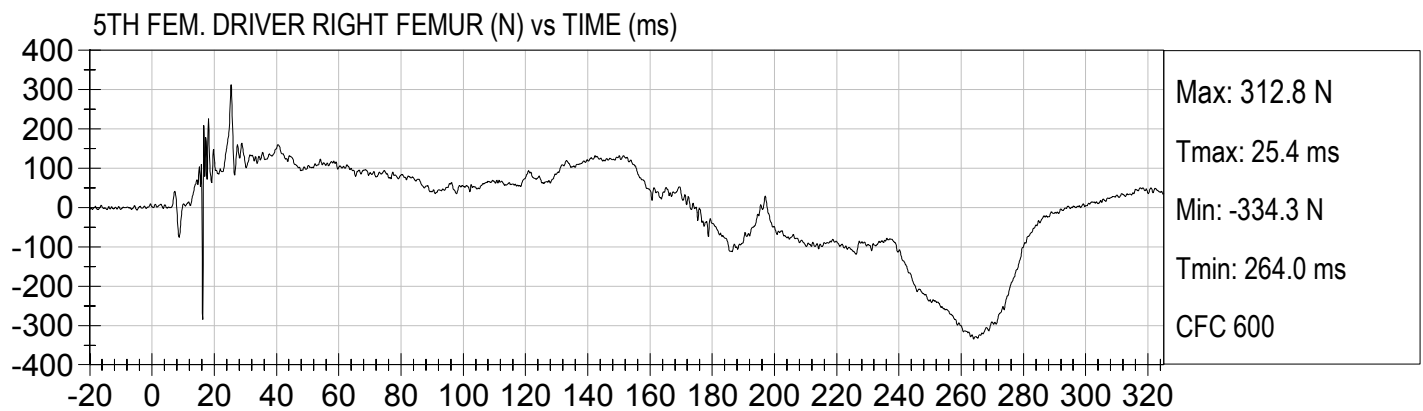
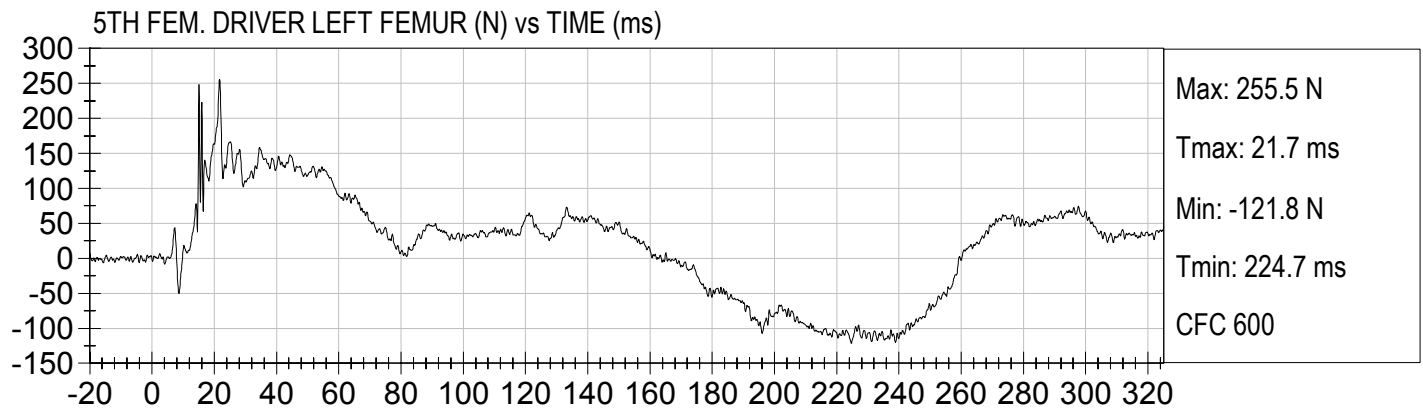


LOW RISK DEPLOYMENT

2005 Mercedes Benz C230 (C50500) (5TH P1 Trial 4)

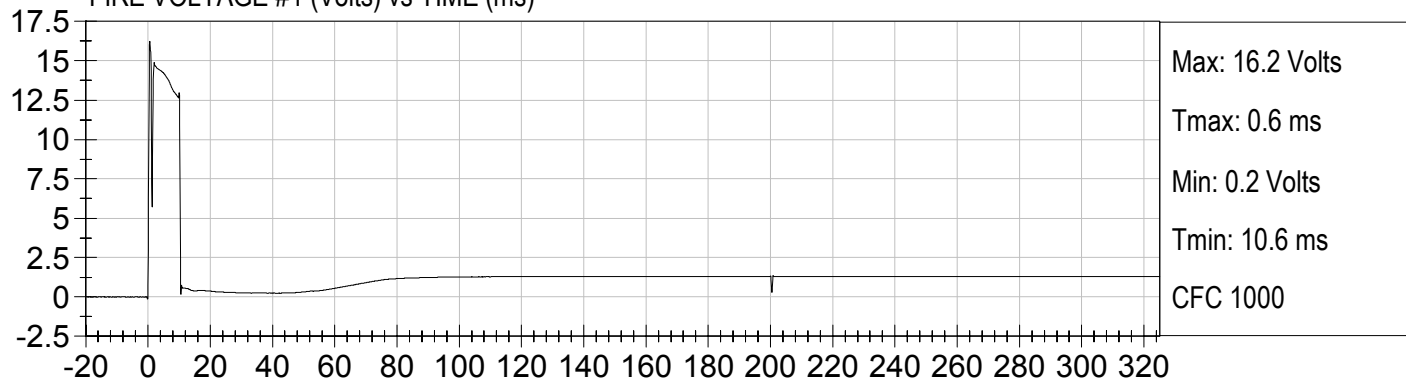
Test Date: 07/07/05

Speed: 0.0 mph ( 0.0 km/h)

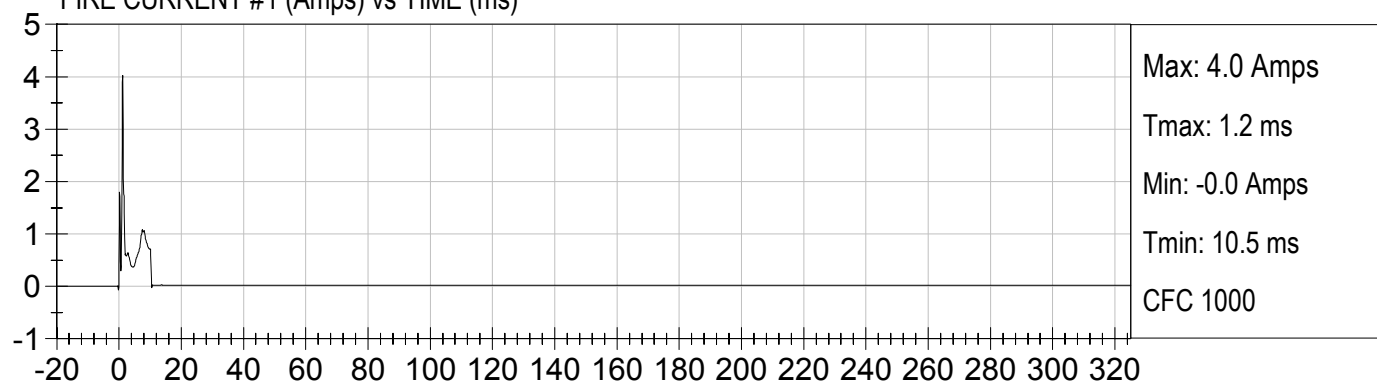




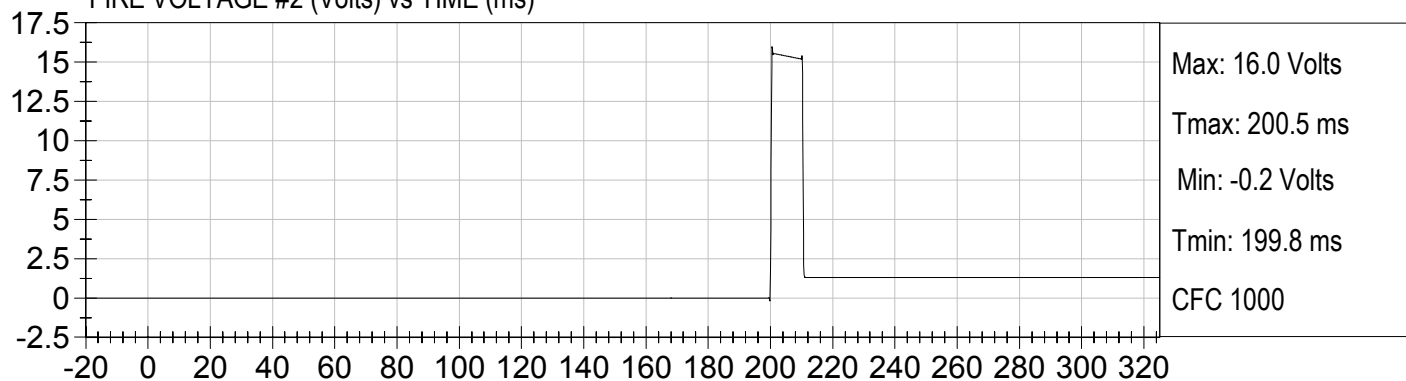
FIRE VOLTAGE #1 (Volts) vs TIME (ms)



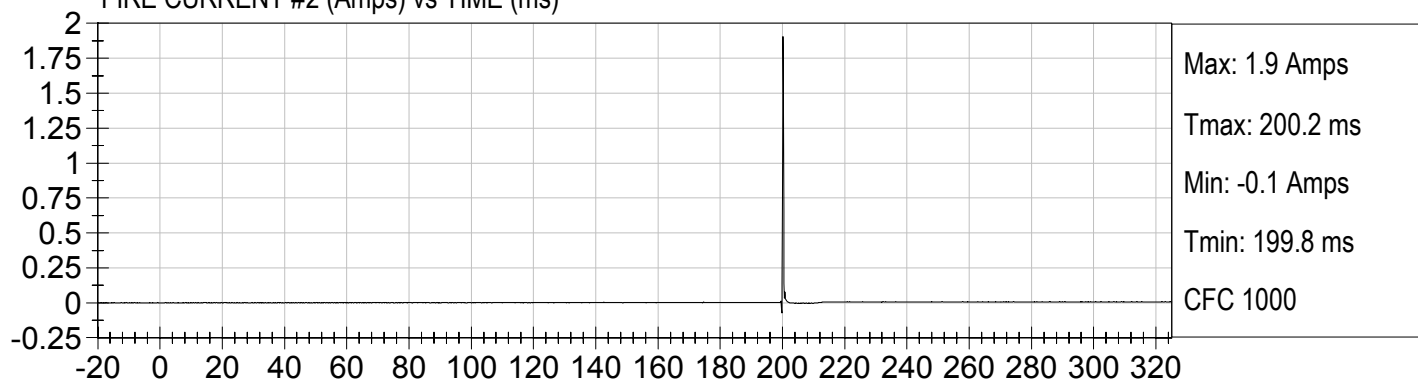
FIRE CURRENT #1 (Amps) vs TIME (ms)



FIRE VOLTAGE #2 (Volts) vs TIME (ms)



FIRE CURRENT #2 (Amps) vs TIME (ms)





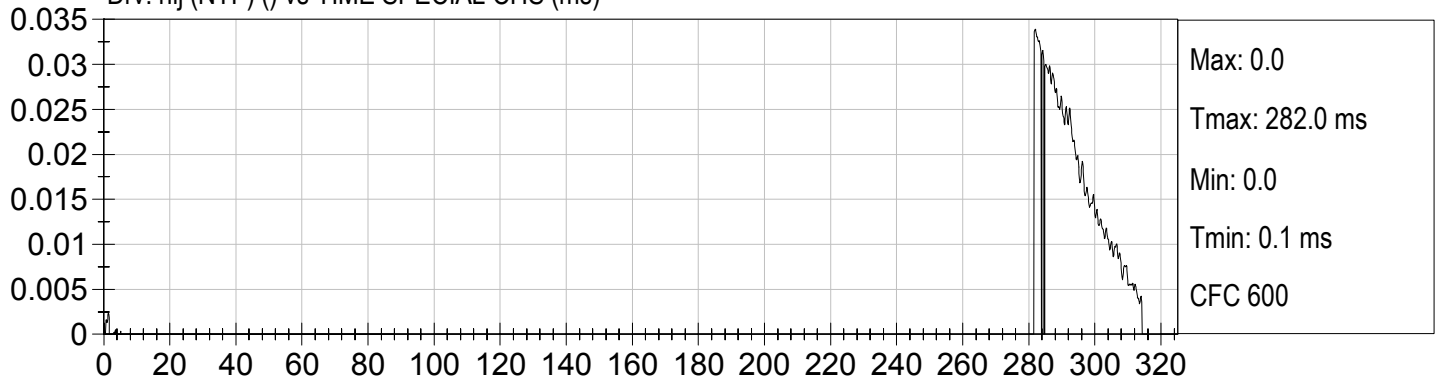
LOW RISK DEPLOYMENT

2005 Mercedes Benz C230 (C50500) (5TH P1 Trial 4)

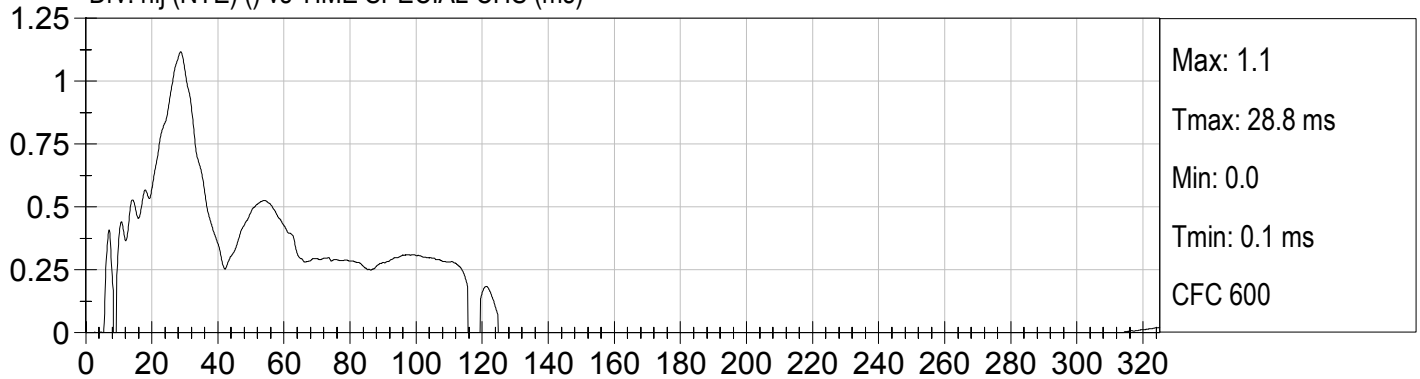
Test Date: 07/07/05

Speed: 0.0 mph ( 0.0 km/h)

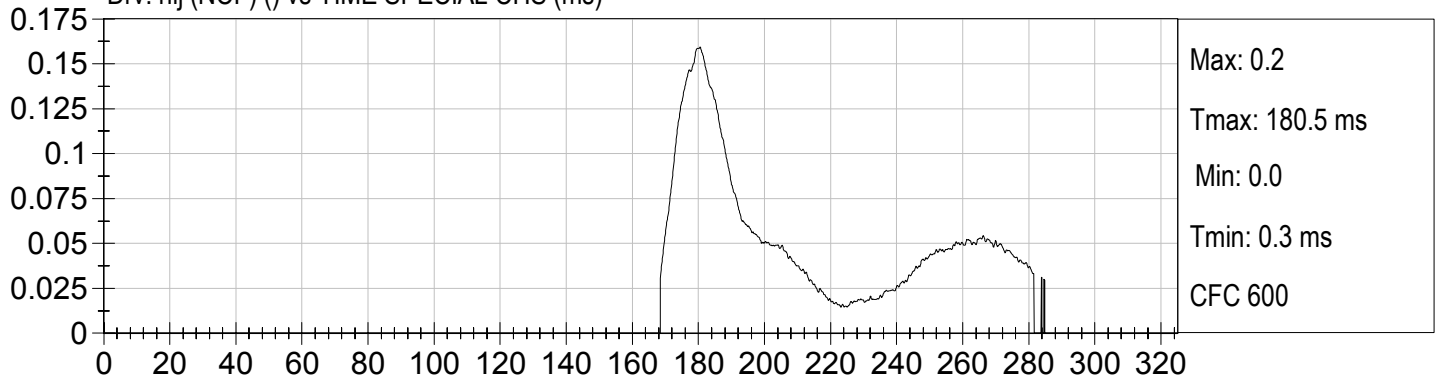
Drv. nij (NTF) ( ) vs TIME SPECIAL CHS (ms)



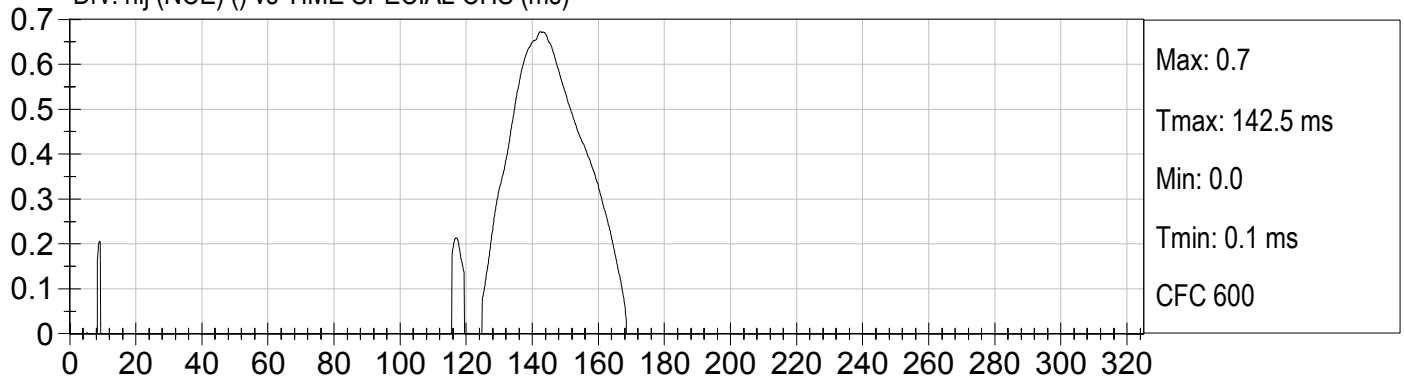
Drv. nij (NTE) ( ) vs TIME SPECIAL CHS (ms)



Drv. nij (NCF) ( ) vs TIME SPECIAL CHS (ms)



Drv. nij (NCE) ( ) vs TIME SPECIAL CHS (ms)





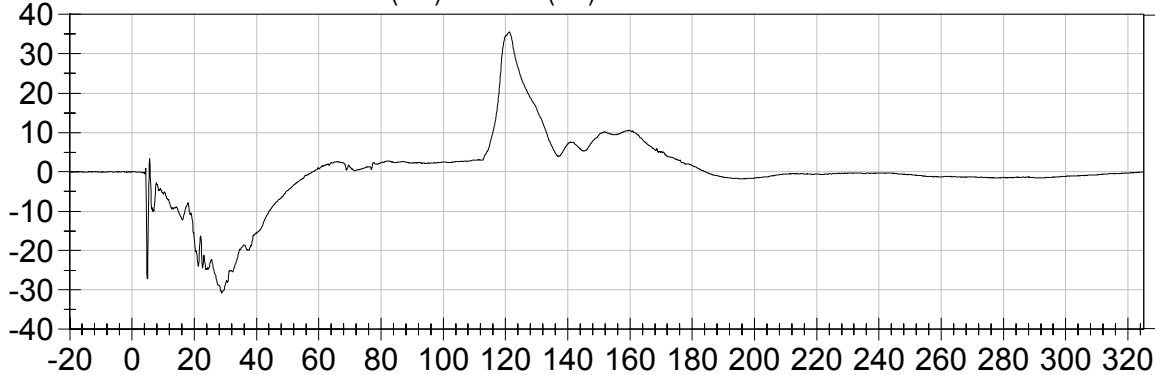
LOW RISK DEPLOYMENT

2005 Mercedes Benz C230 (C50500) (5TH P1 Trial 5)

Test Date: 07/07/05

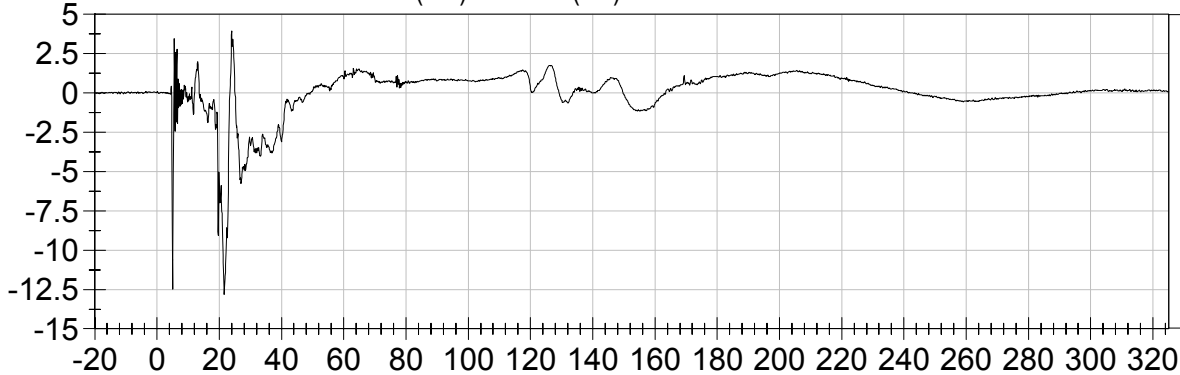
Speed: 0.0 mph ( 0.0 km/h)

5TH FEM. DRIVER HEAD X (G's) vs TIME (ms)



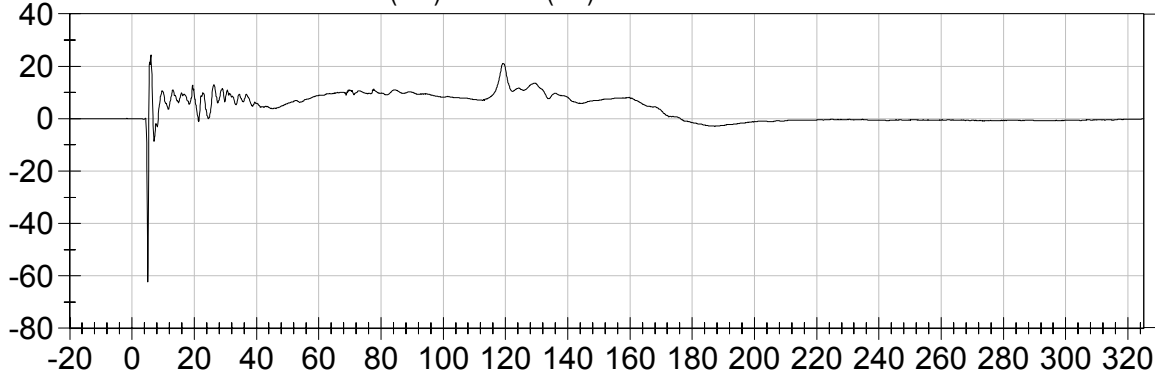
Max: 35.5 G's  
Tmax: 121.2 ms  
Min: -30.7 G's  
Tmin: 28.8 ms  
CFC 1000

5TH FEM. DRIVER HEAD Y (G's) vs TIME (ms)



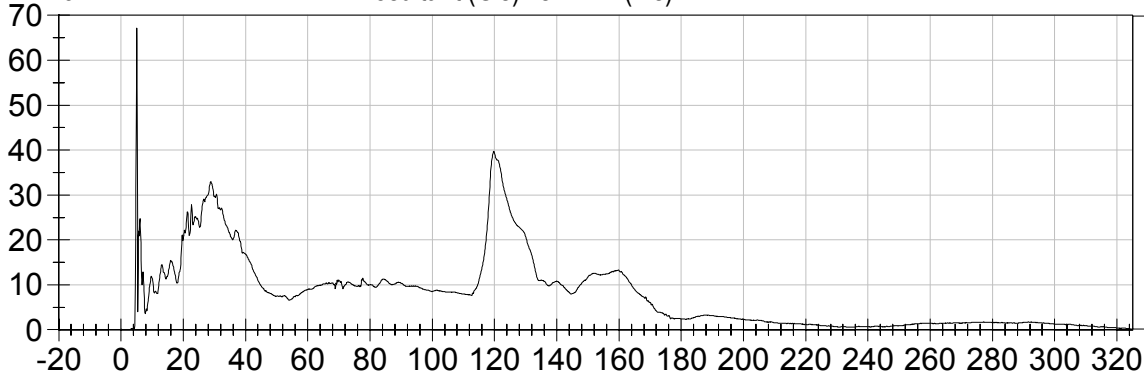
Max: 4.0 G's  
Tmax: 24.0 ms  
Min: -12.8 G's  
Tmin: 21.6 ms  
CFC 1000

5TH FEM. DRIVER HEAD Z (G's) vs TIME (ms)



Max: 24.3 G's  
Tmax: 6.1 ms  
Min: -62.4 G's  
Tmin: 5.1 ms  
CFC 1000

5TH FEM. DRIVER HEAD Resultant (G's) vs TIME (ms)



Max: 67.2 G's  
Tmax: 5.1 ms  
Min: 0.0 G's  
Tmin: 0.8 ms  
CFC 1000

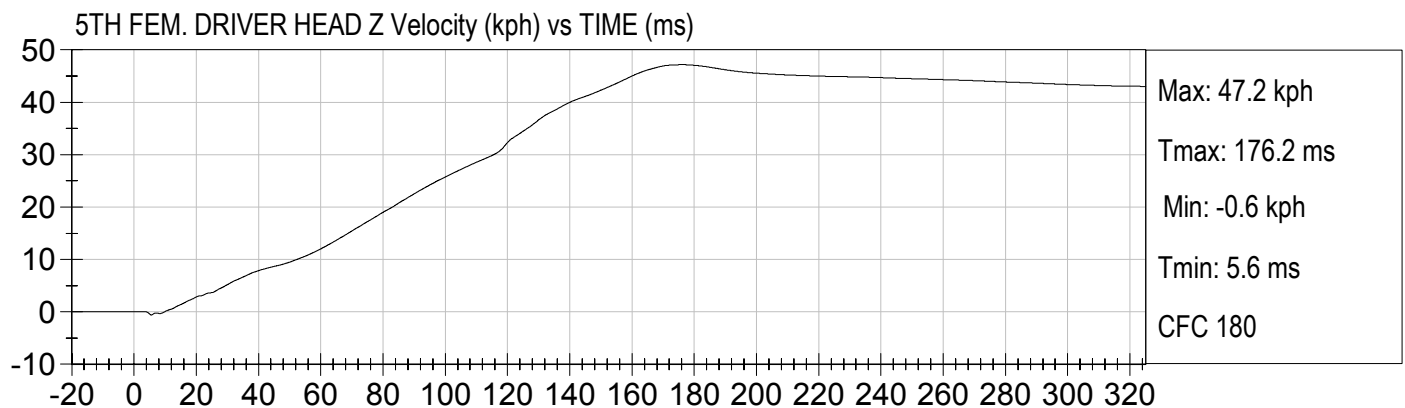
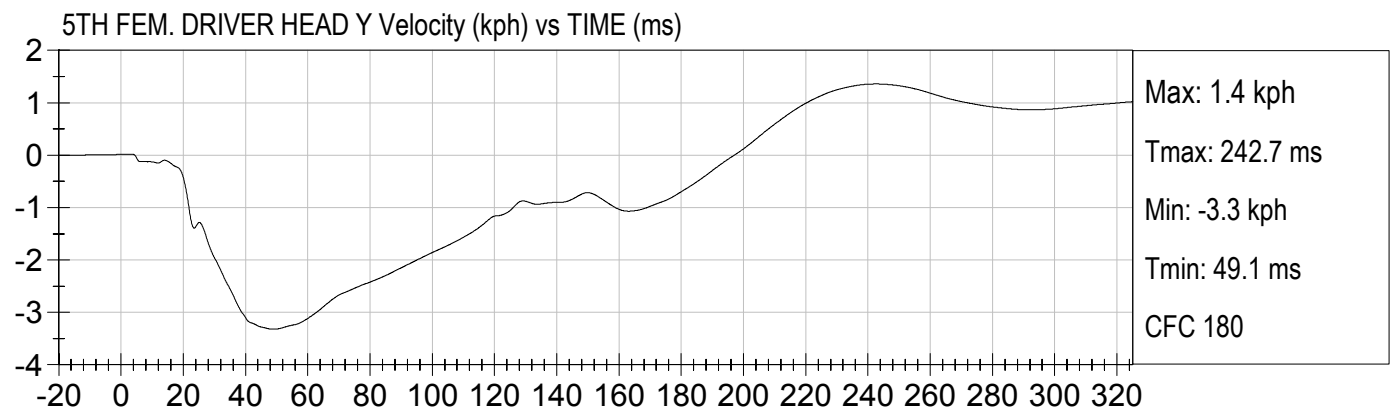
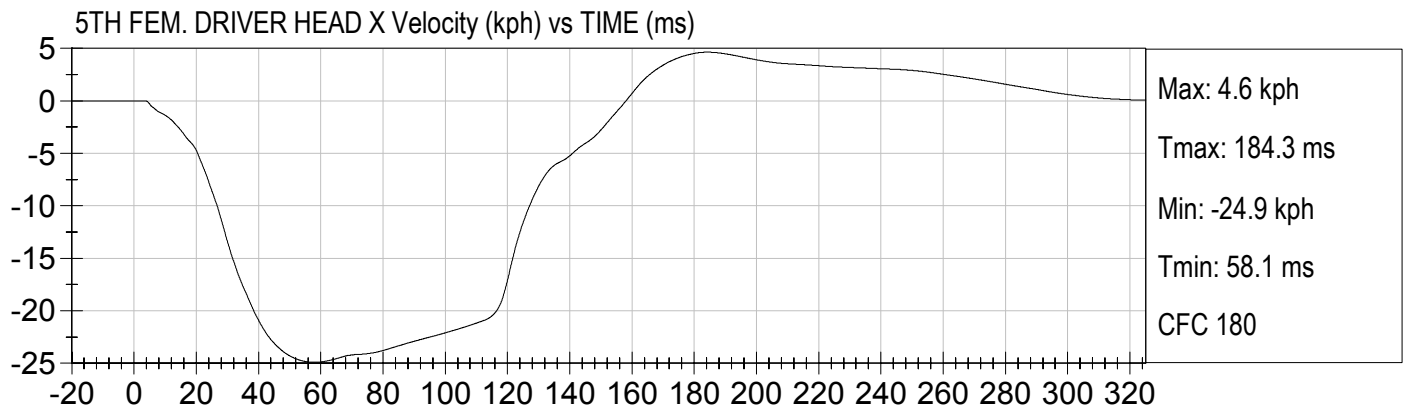


LOW RISK DEPLOYMENT

2005 Mercedes Benz C230 (C50500) (5TH P1 Trial 5)

Test Date: 07/07/05

Speed: 0.0 mph ( 0.0 km/h)





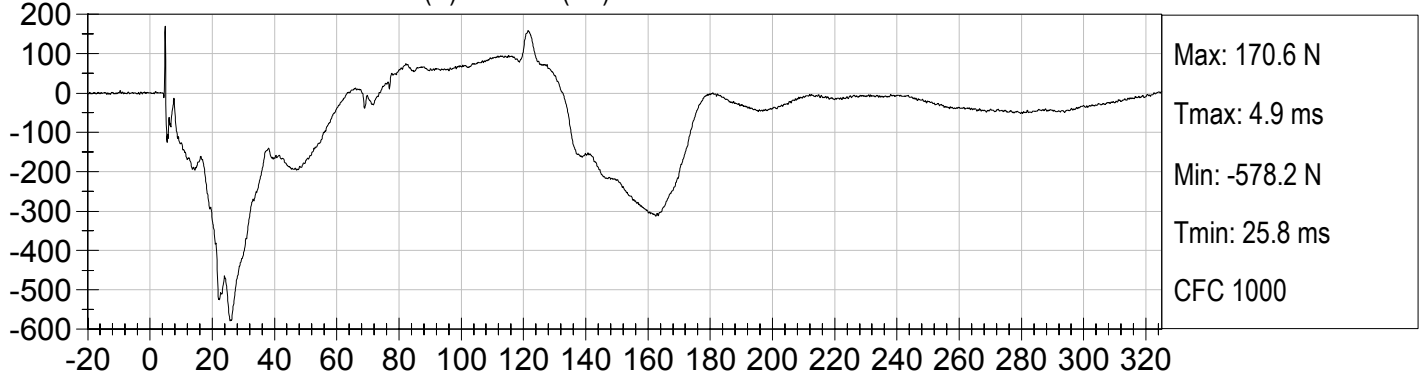
LOW RISK DEPLOYMENT

2005 Mercedes Benz C230 (C50500) (5TH P1 Trial 5)

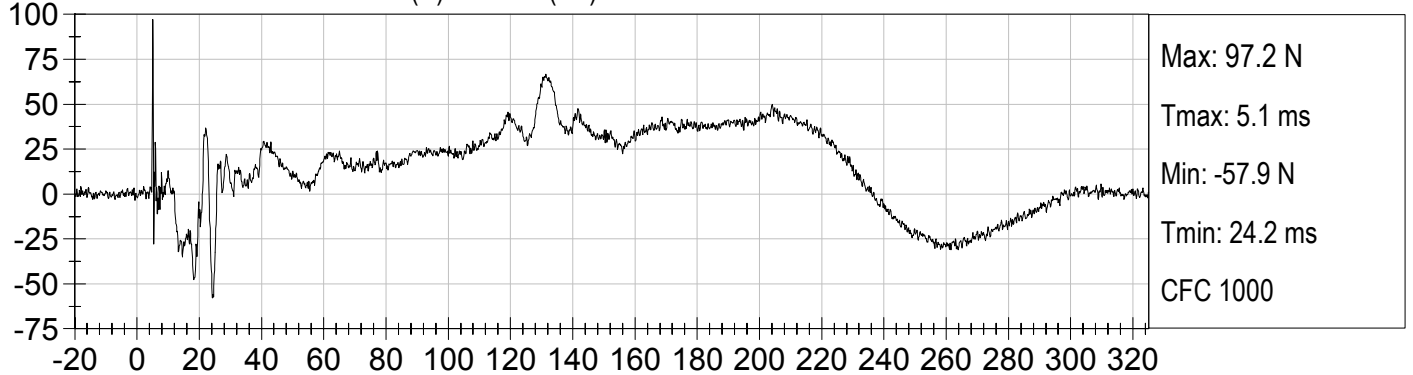
Test Date: 07/07/05

Speed: 0.0 mph ( 0.0 km/h)

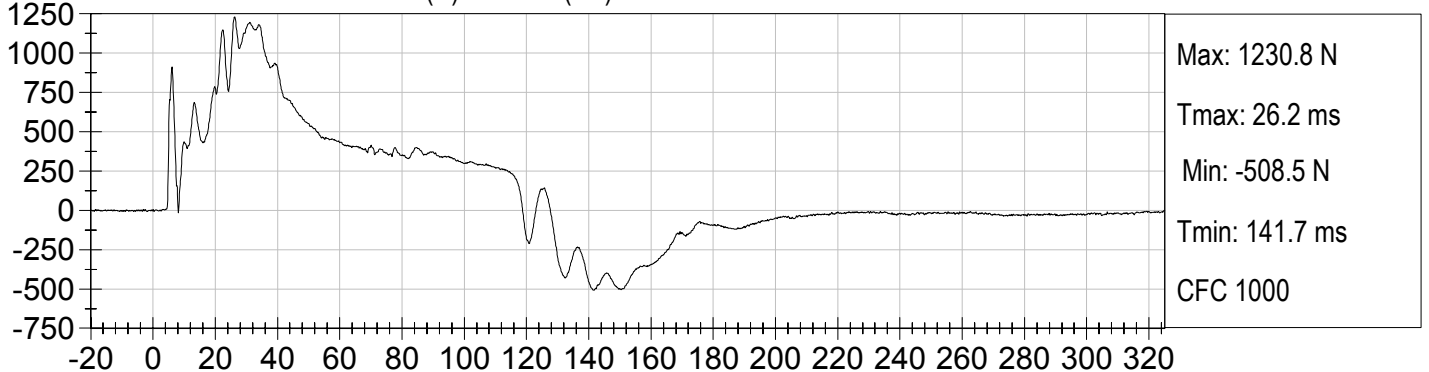
5TH FEM. DRIVER NECK FX (N) vs TIME (ms)



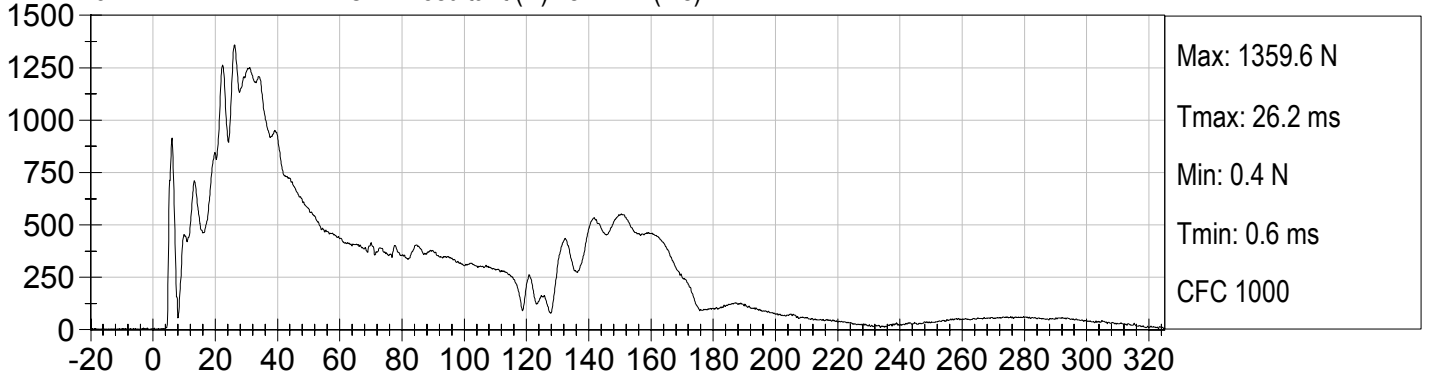
5TH FEM. DRIVER NECK FY (N) vs TIME (ms)



5TH FEM. DRIVER NECK FZ (N) vs TIME (ms)



5TH FEM. DRIVER NECK FResultant (N) vs TIME (ms)





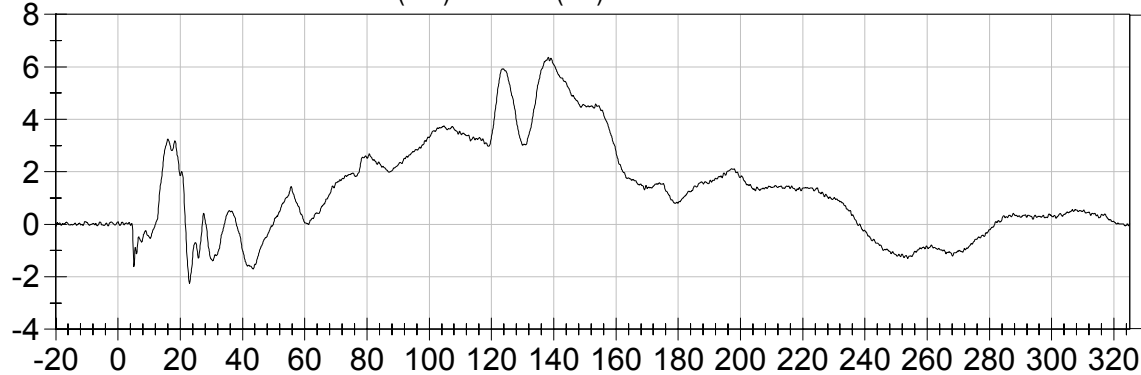
LOW RISK DEPLOYMENT

2005 Mercedes Benz C230 (C50500) (5TH P1 Trial 5)

Test Date: 07/07/05

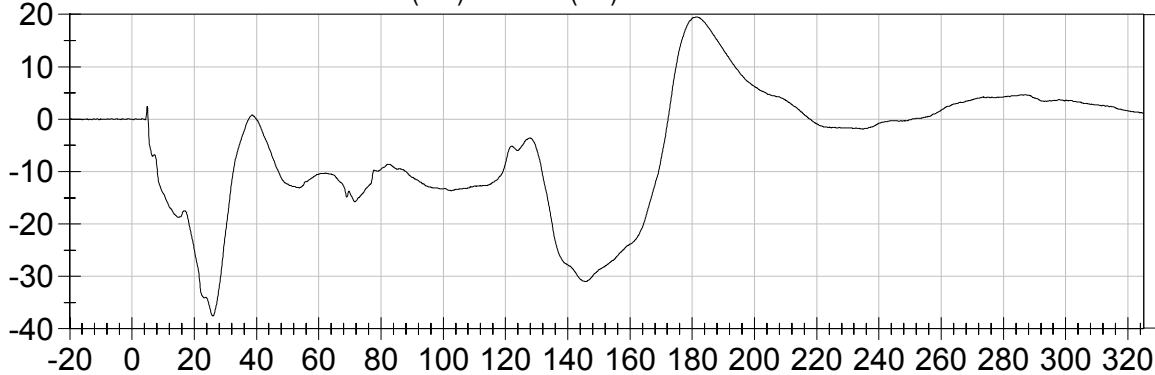
Speed: 0.0 mph ( 0.0 km/h)

5TH FEM. DRIVER NECK MX (Nm) vs TIME (ms)



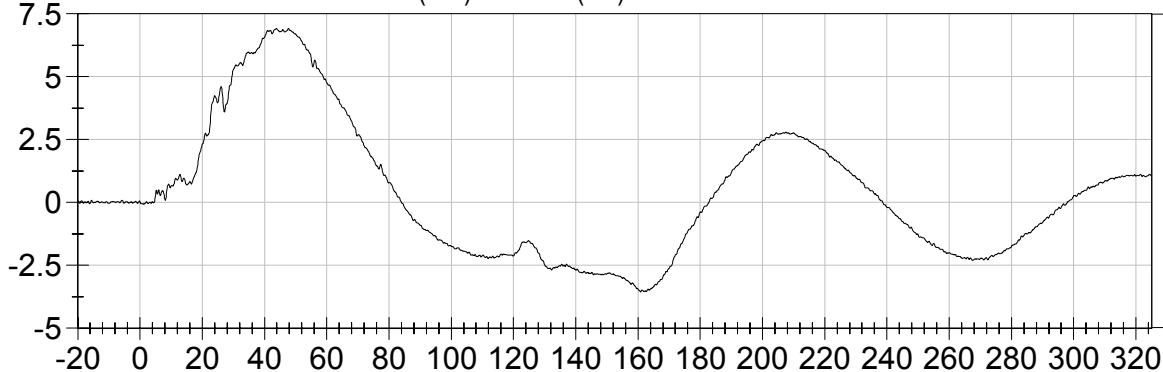
Max: 6.4 Nm  
Tmax: 138.2 ms  
Min: -2.2 Nm  
Tmin: 23.0 ms  
CFC 600

5TH FEM. DRIVER NECK MY (Nm) vs TIME (ms)



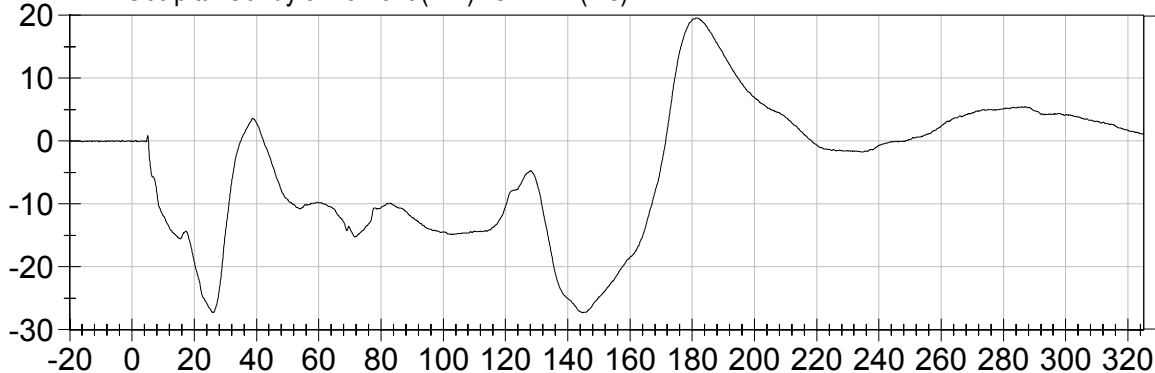
Max: 19.5 Nm  
Tmax: 181.3 ms  
Min: -37.5 Nm  
Tmin: 26.0 ms  
CFC 600

5TH FEM. DRIVER NECK MZ (Nm) vs TIME (ms)



Max: 6.9 Nm  
Tmax: 47.7 ms  
Min: -3.6 Nm  
Tmin: 160.8 ms  
CFC 600

Drv. Occipital Condyle Moment (Nm) vs TIME (ms)



Max: 19.6 Nm  
Tmax: 181.3 ms  
Min: -27.3 Nm  
Tmin: 144.7 ms  
CFC 600

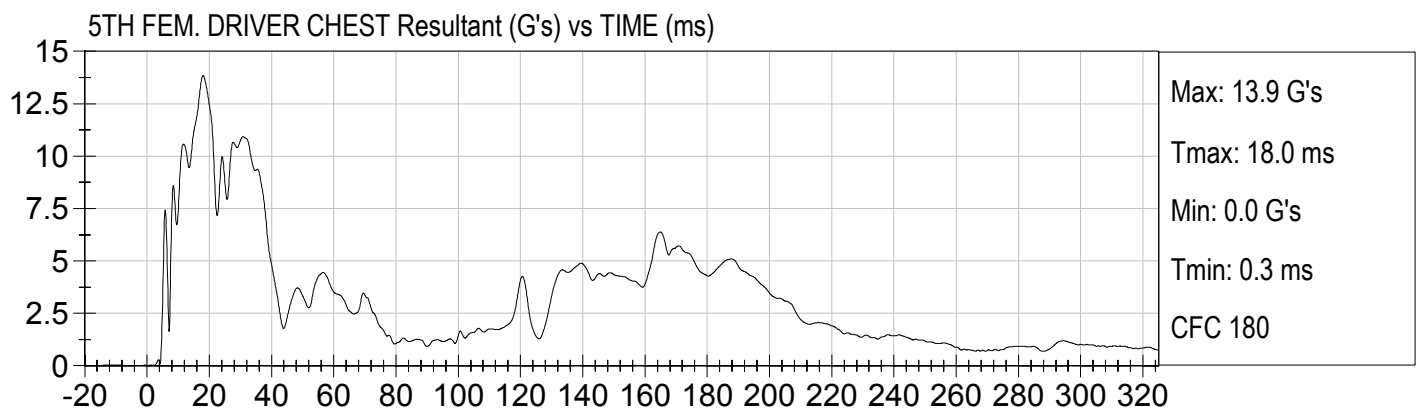
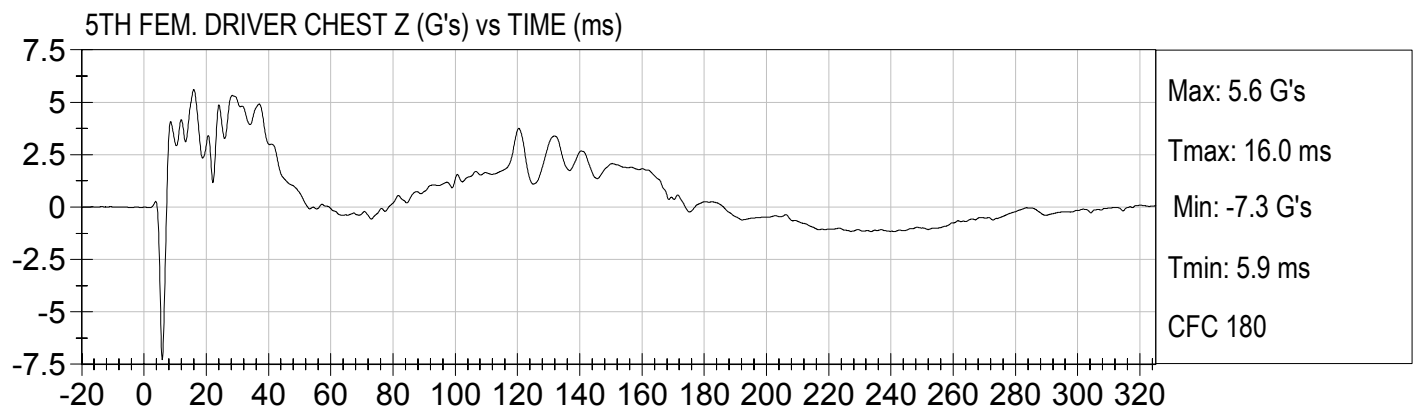
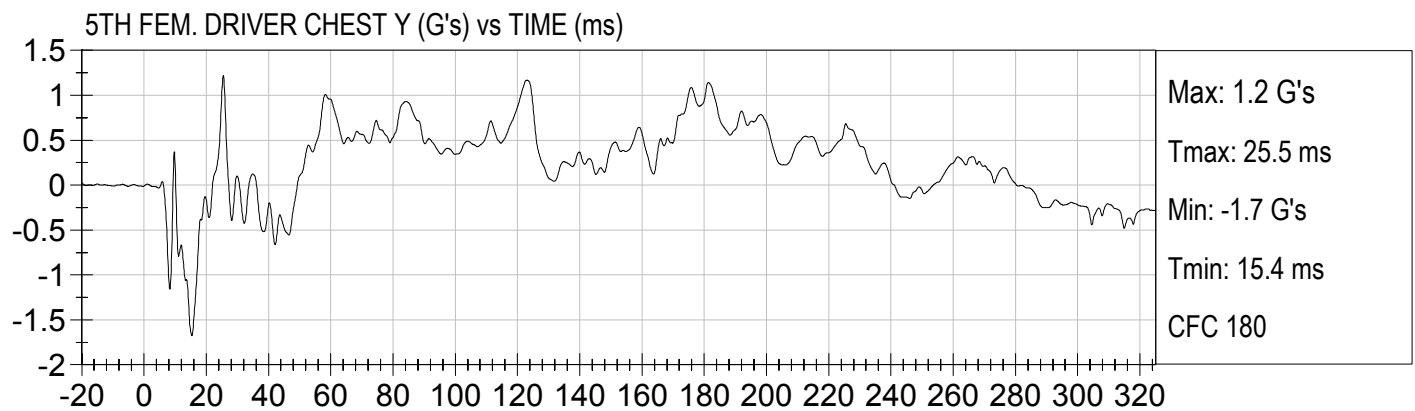
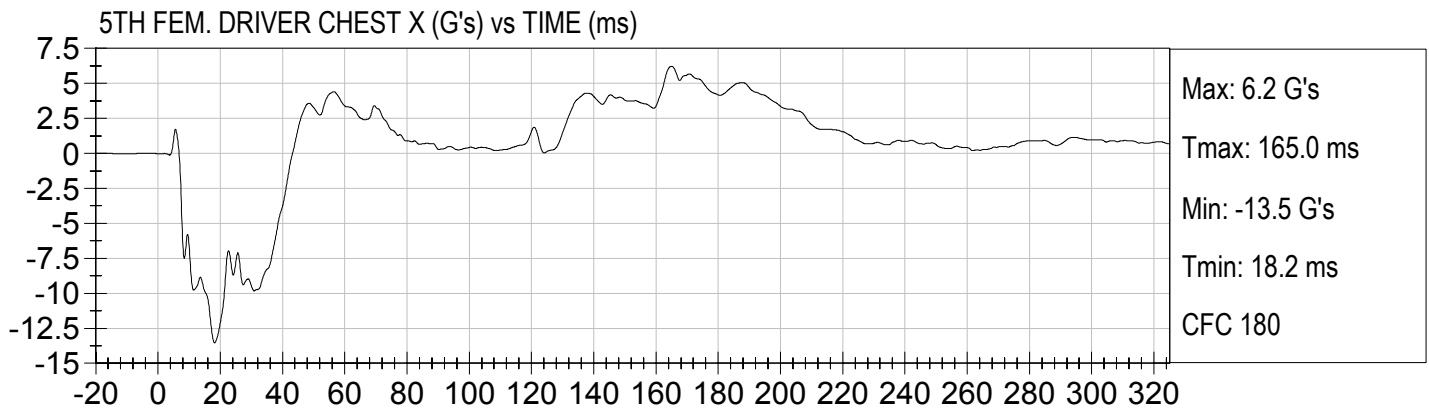


LOW RISK DEPLOYMENT

2005 Mercedes Benz C230 (C50500) (5TH P1 Trial 5)

Test Date: 07/07/05

Speed: 0.0 mph ( 0.0 km/h)







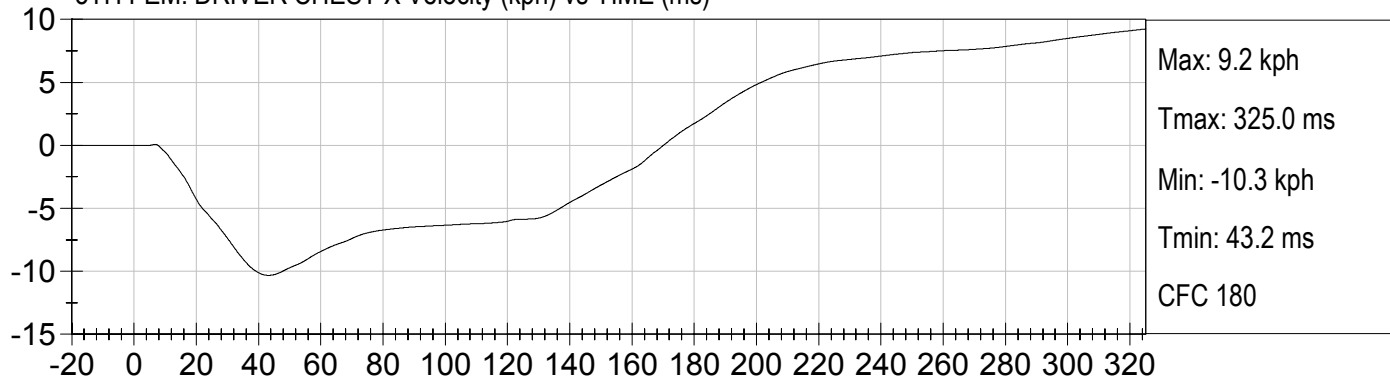
LOW RISK DEPLOYMENT

2005 Mercedes Benz C230 (C50500) (5TH P1 Trial 5)

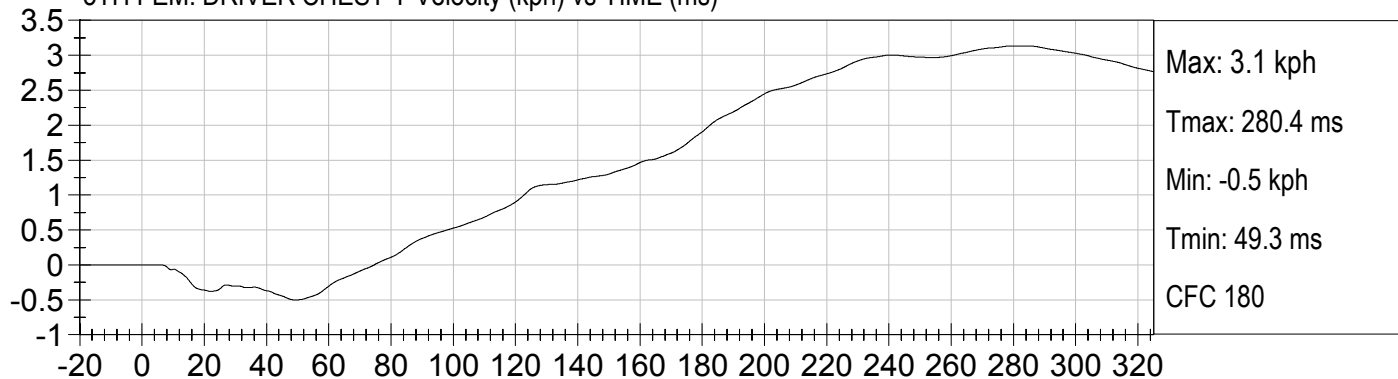
Test Date: 07/07/05

Speed: 0.0 mph ( 0.0 km/h)

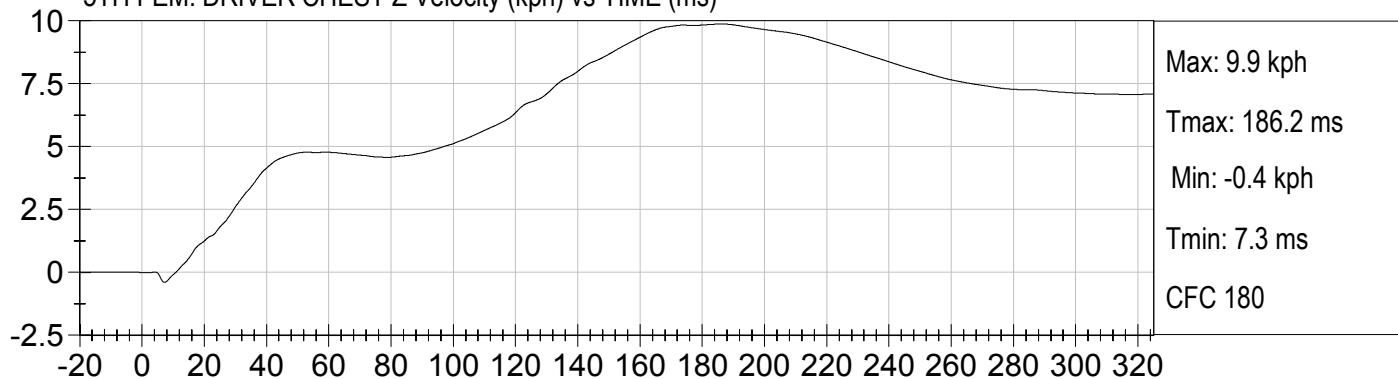
5TH FEM. DRIVER CHEST X Velocity (kph) vs TIME (ms)



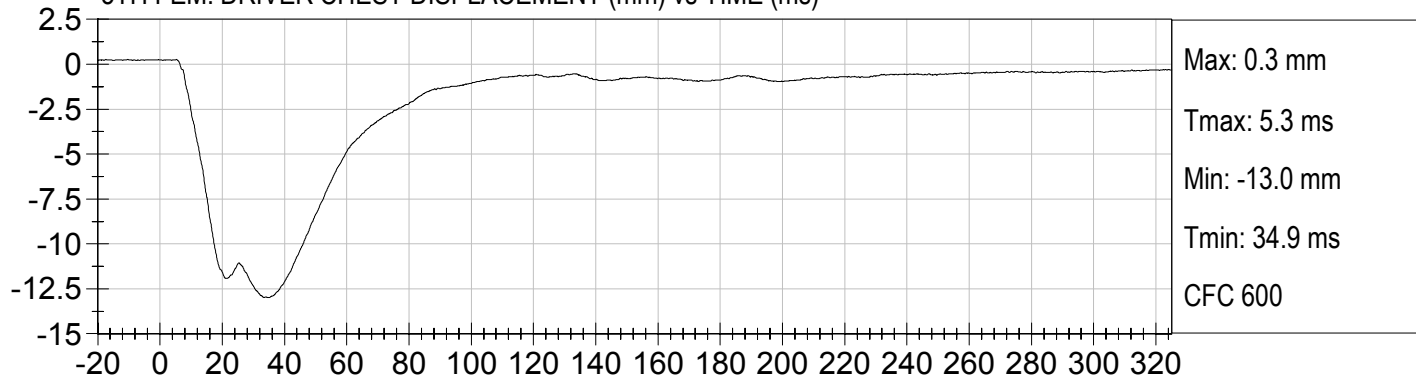
5TH FEM. DRIVER CHEST Y Velocity (kph) vs TIME (ms)



5TH FEM. DRIVER CHEST Z Velocity (kph) vs TIME (ms)



5TH FEM. DRIVER CHEST DISPLACEMENT (mm) vs TIME (ms)



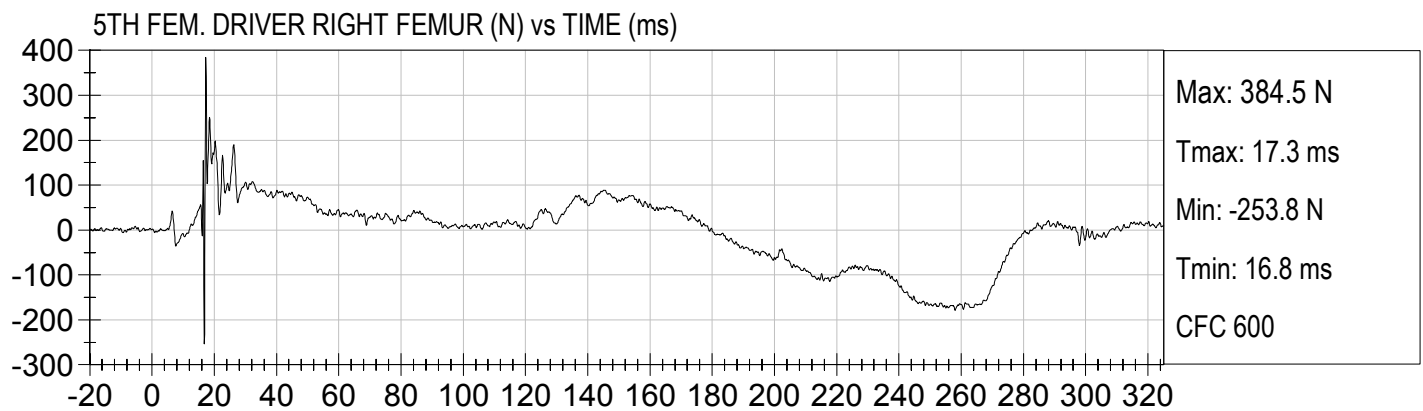
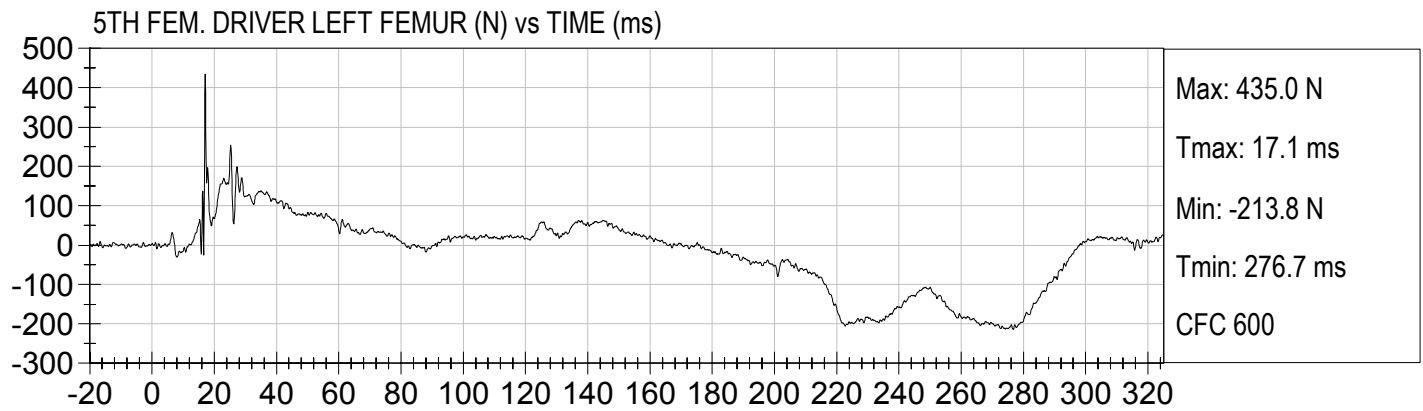


LOW RISK DEPLOYMENT

2005 Mercedes Benz C230 (C50500) (5TH P1 Trial 5)

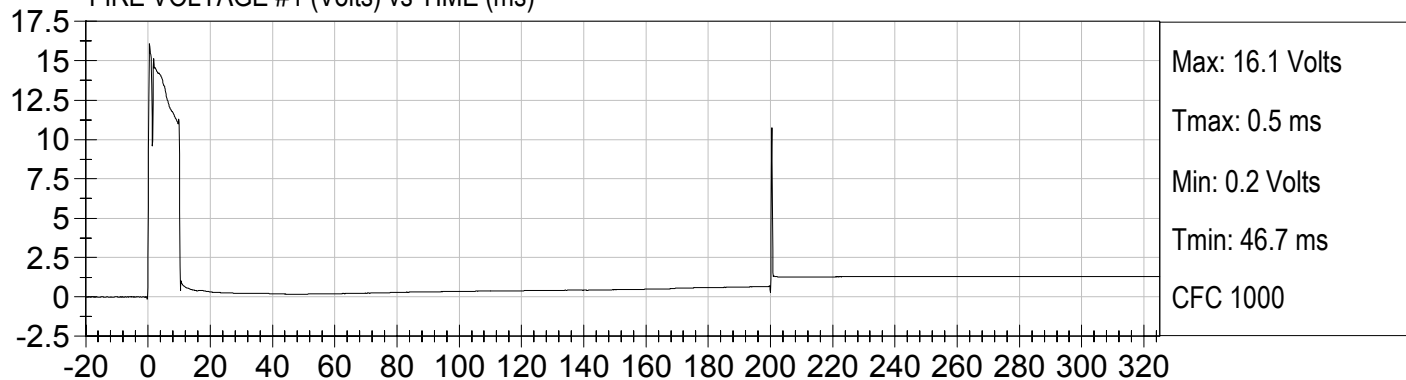
Test Date: 07/07/05

Speed: 0.0 mph ( 0.0 km/h)

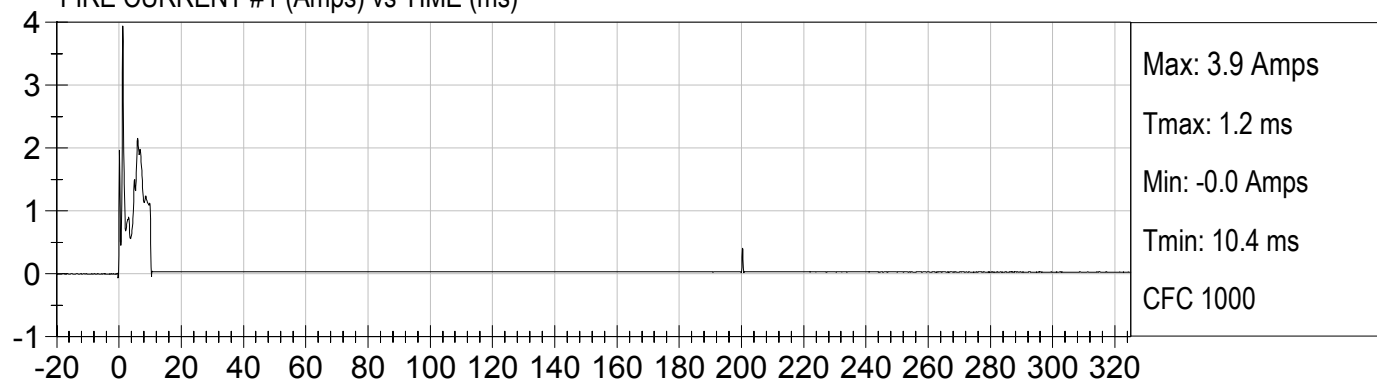




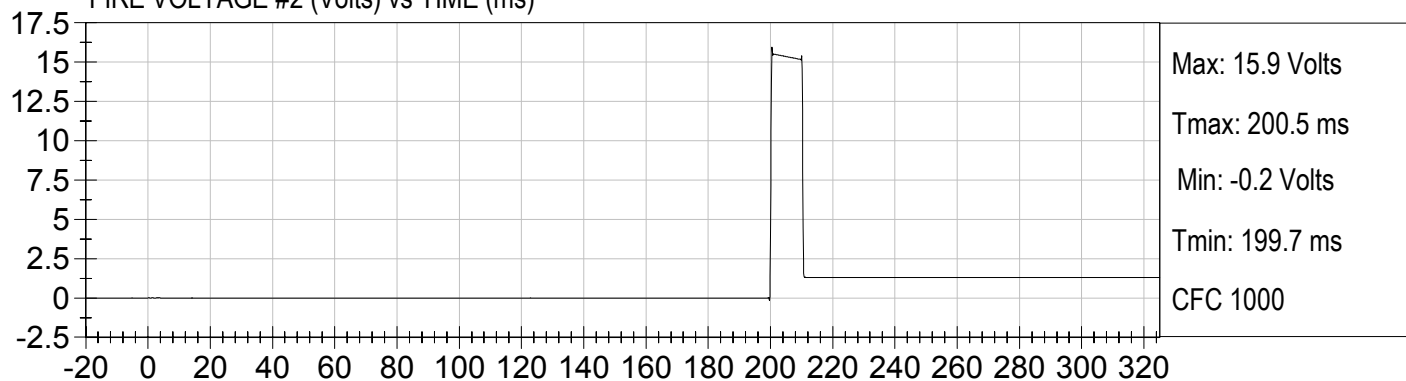
FIRE VOLTAGE #1 (Volts) vs TIME (ms)



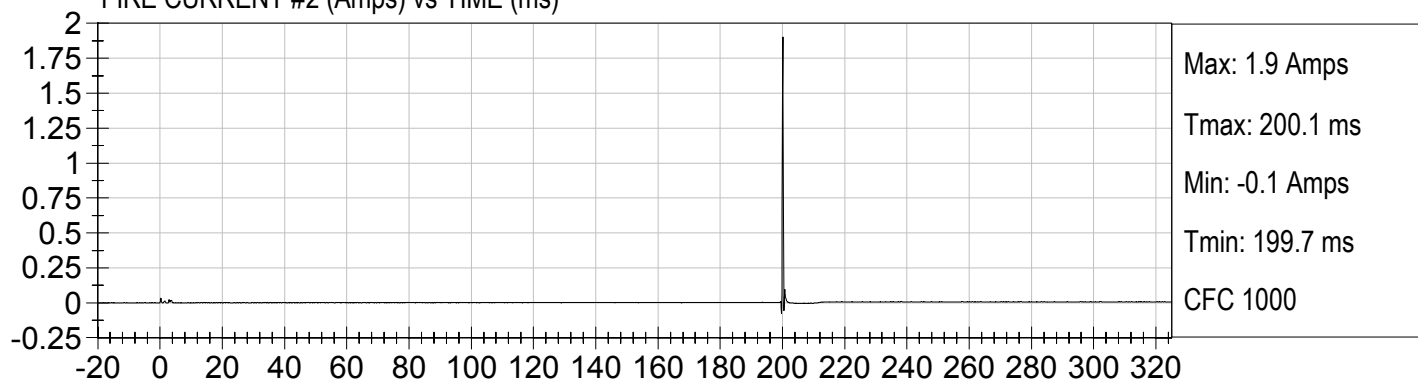
FIRE CURRENT #1 (Amps) vs TIME (ms)



FIRE VOLTAGE #2 (Volts) vs TIME (ms)



FIRE CURRENT #2 (Amps) vs TIME (ms)





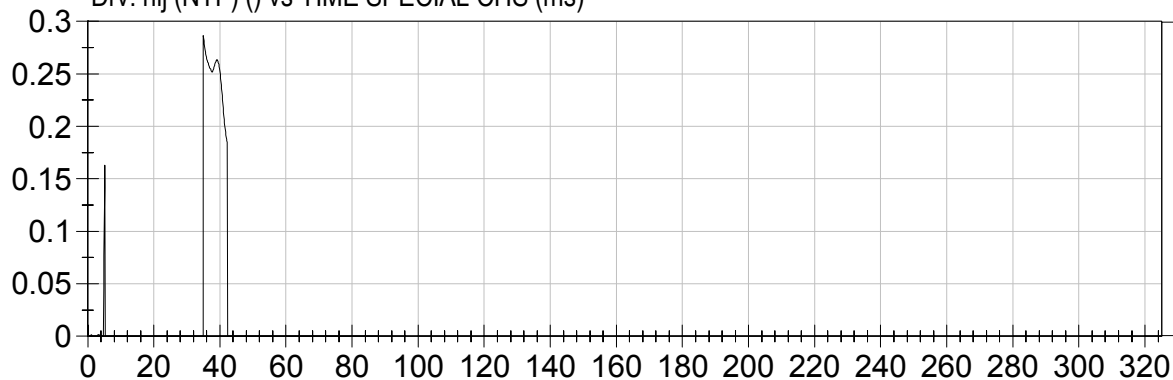
LOW RISK DEPLOYMENT

2005 Mercedes Benz C230 (C50500) (5TH P1 Trial 5)

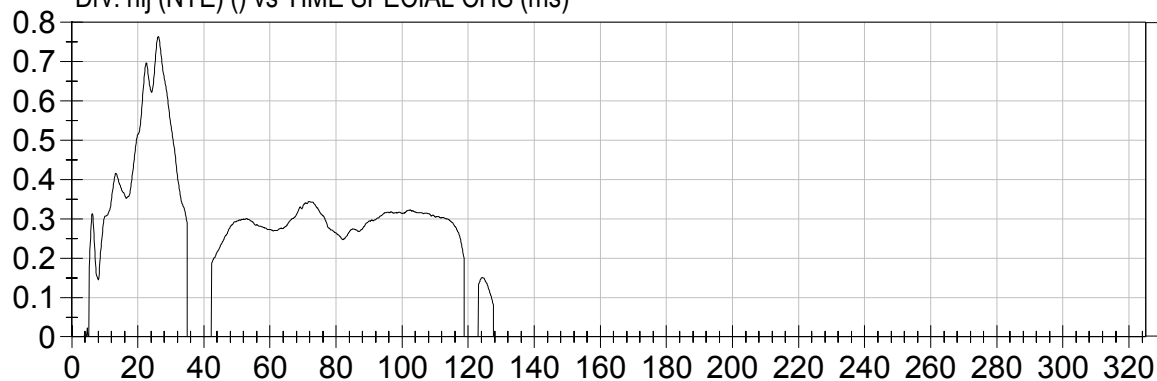
Test Date: 07/07/05

Speed: 0.0 mph ( 0.0 km/h)

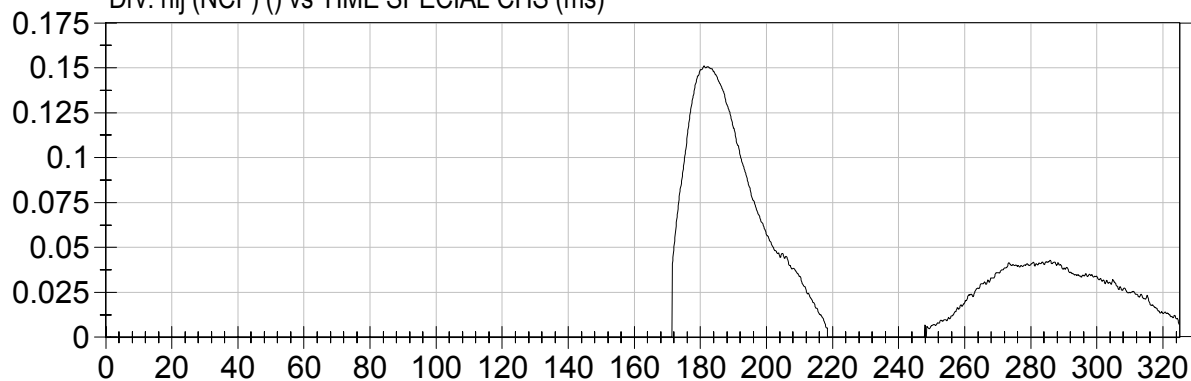
Drv. nij (NTF) () vs TIME SPECIAL CHS (ms)



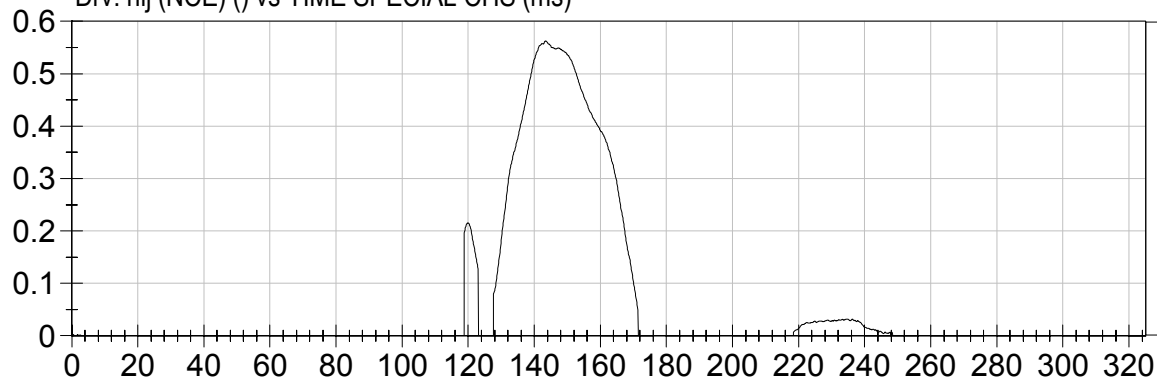
Drv. nij (NTE) () vs TIME SPECIAL CHS (ms)



Drv. nij (NCF) () vs TIME SPECIAL CHS (ms)



Drv. nij (NCE) () vs TIME SPECIAL CHS (ms)



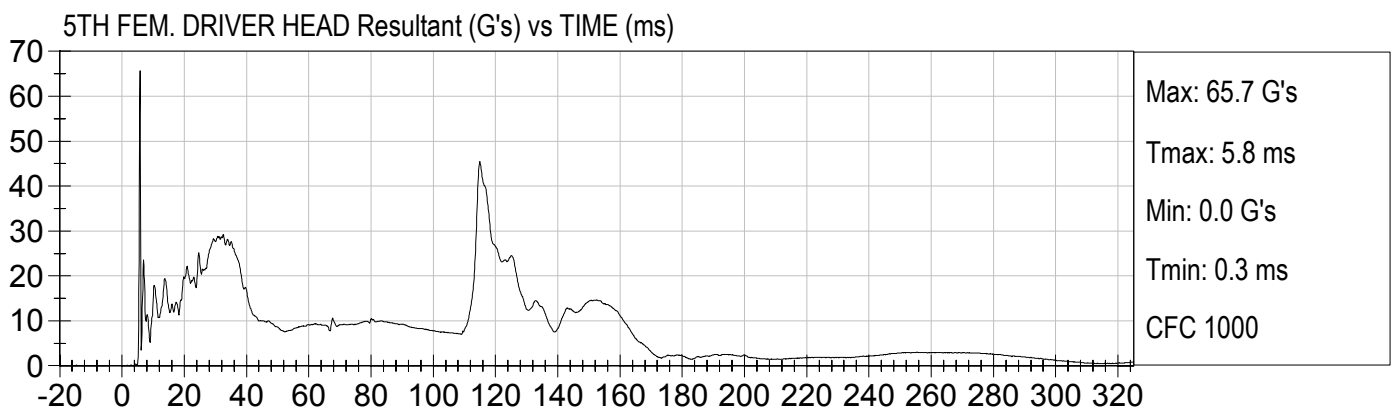
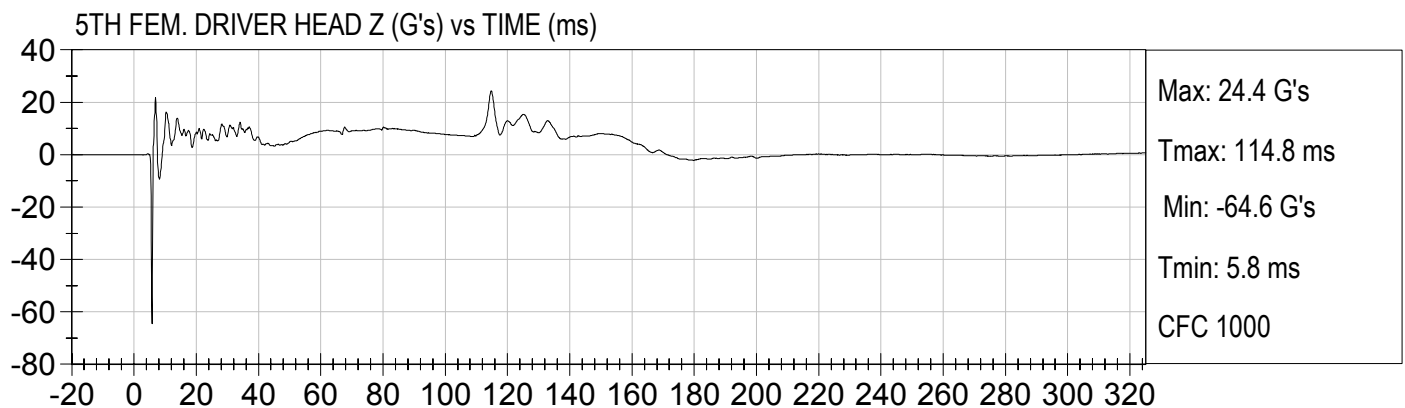
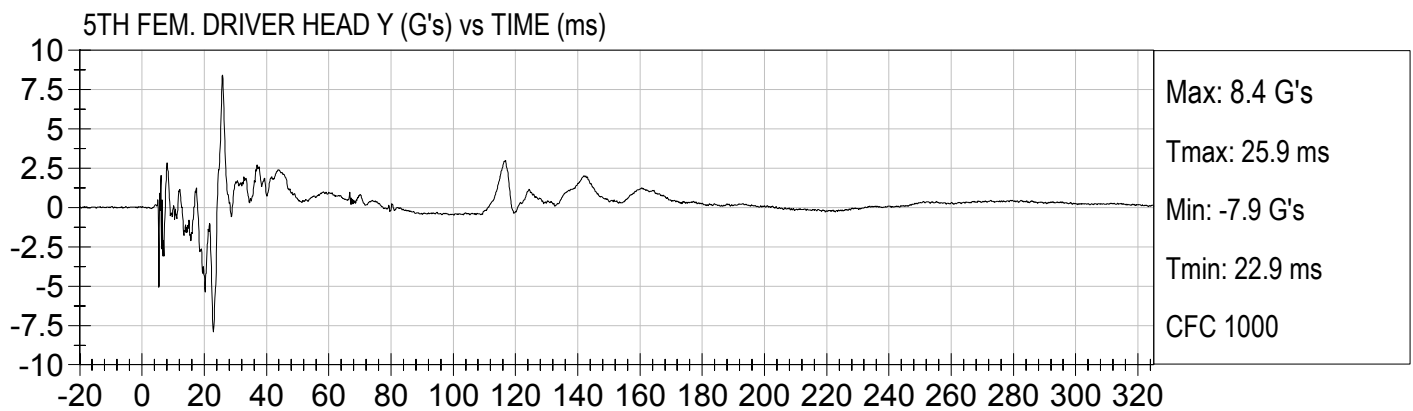
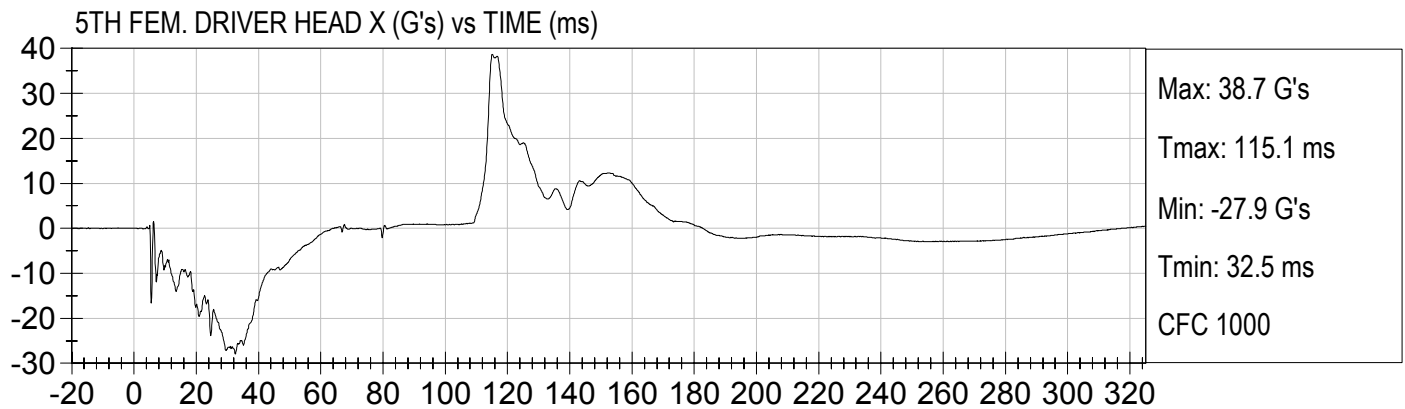


LOW RISK DEPLOYMENT

2005 Mercedes Benz C230 (C50500) (5TH P1 Trial 6)

Test Date: 07/07/05

Speed: 0.0 mph ( 0.0 km/h)



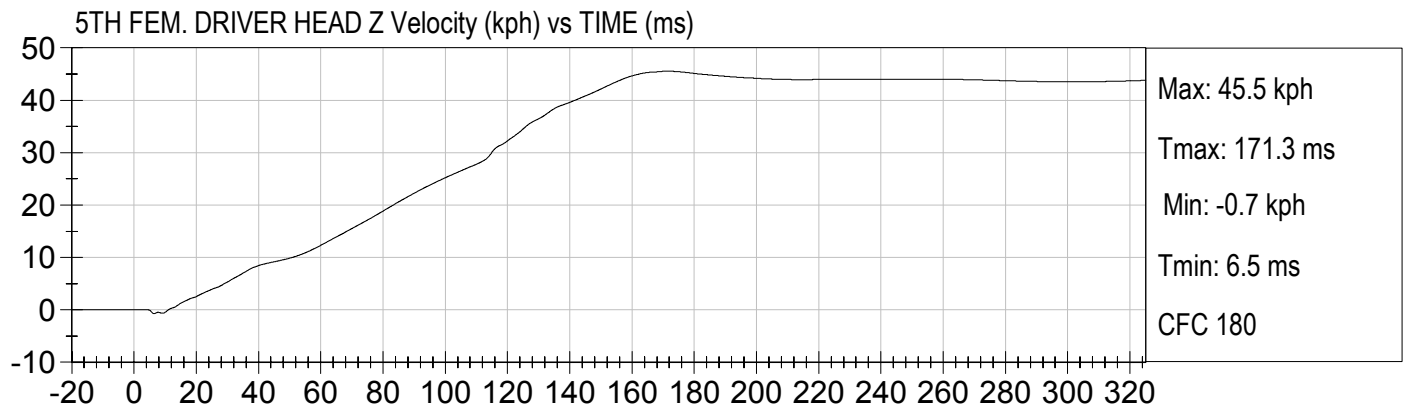
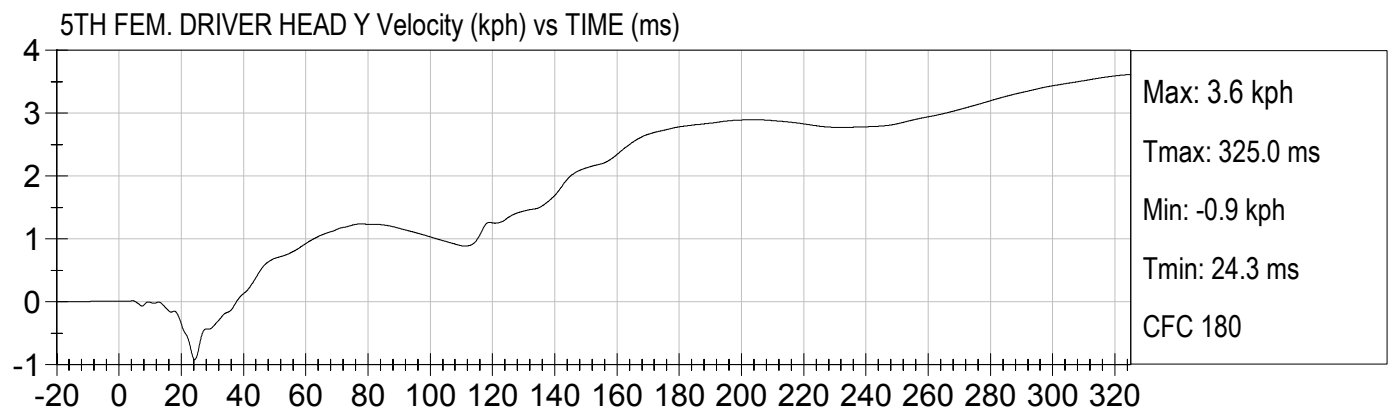
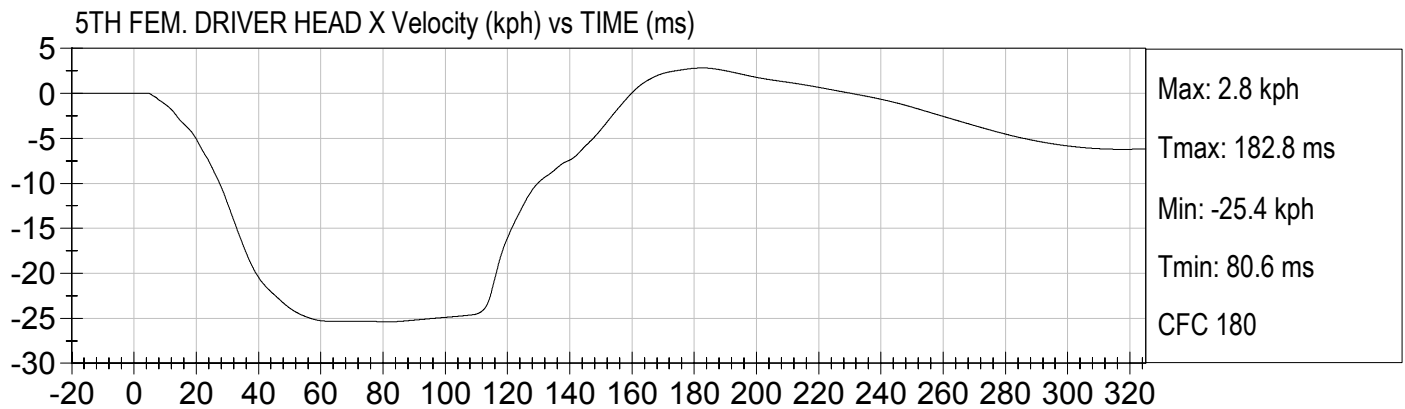


LOW RISK DEPLOYMENT

2005 Mercedes Benz C230 (C50500) (5TH P1 Trial 6)

Test Date: 07/07/05

Speed: 0.0 mph ( 0.0 km/h)



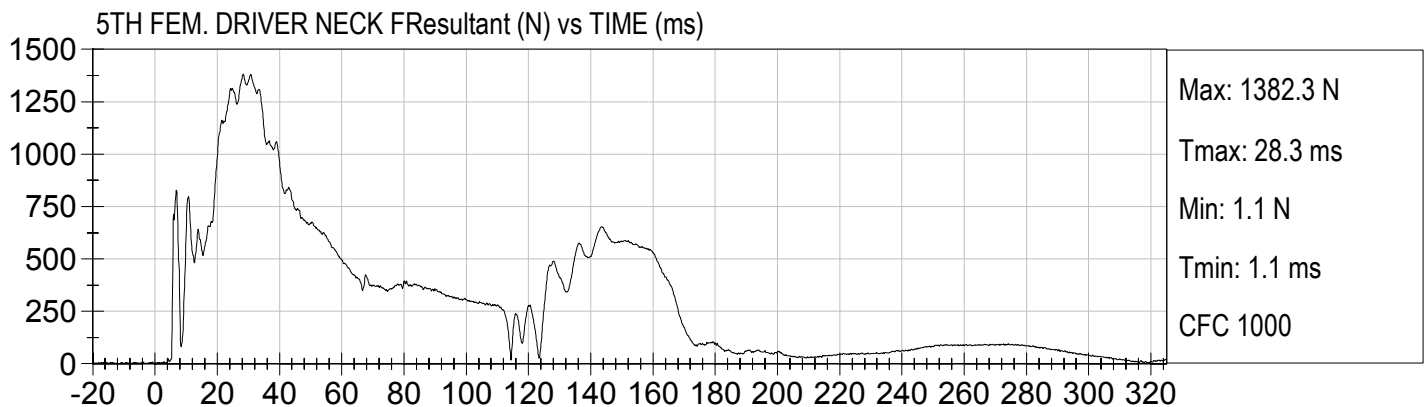
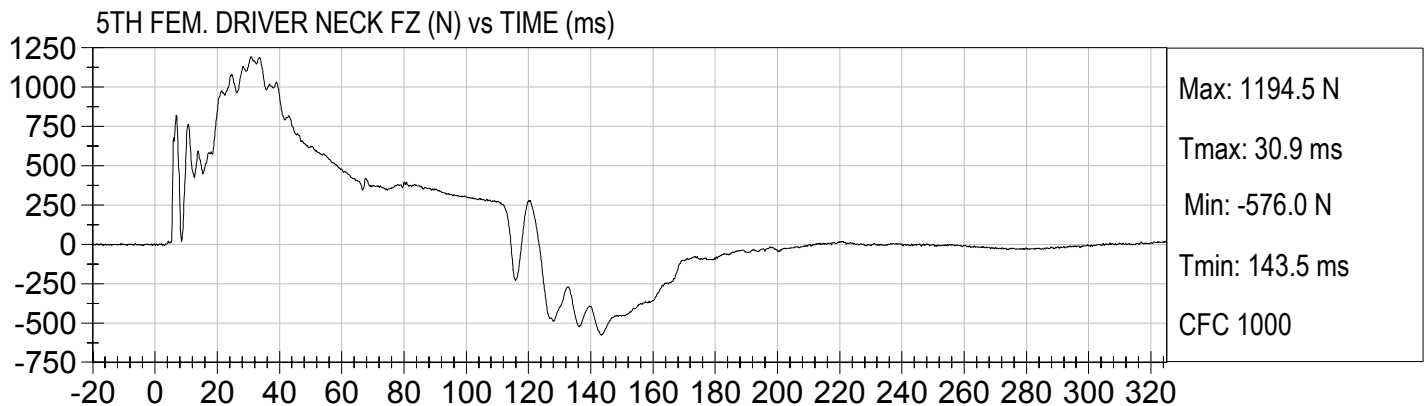
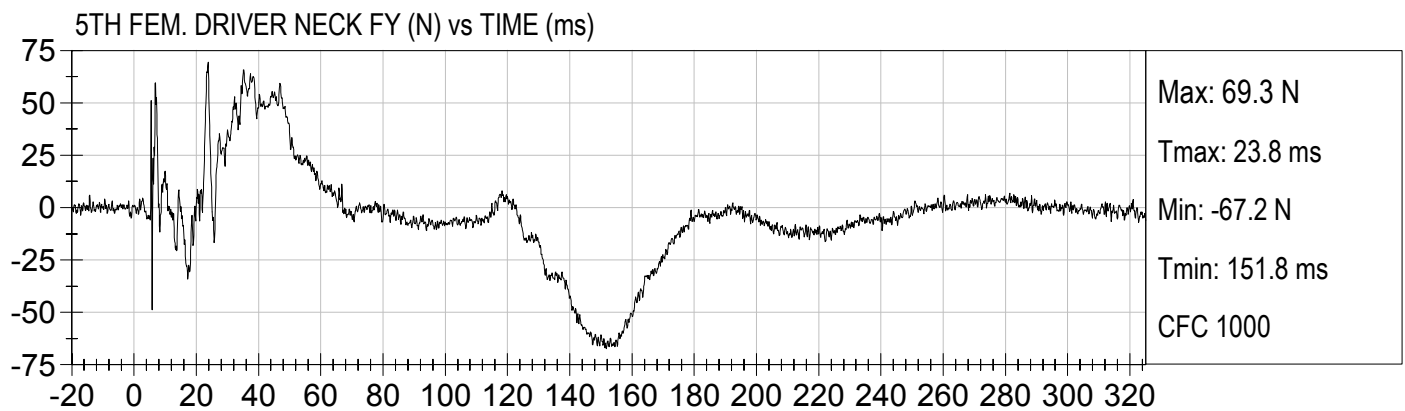
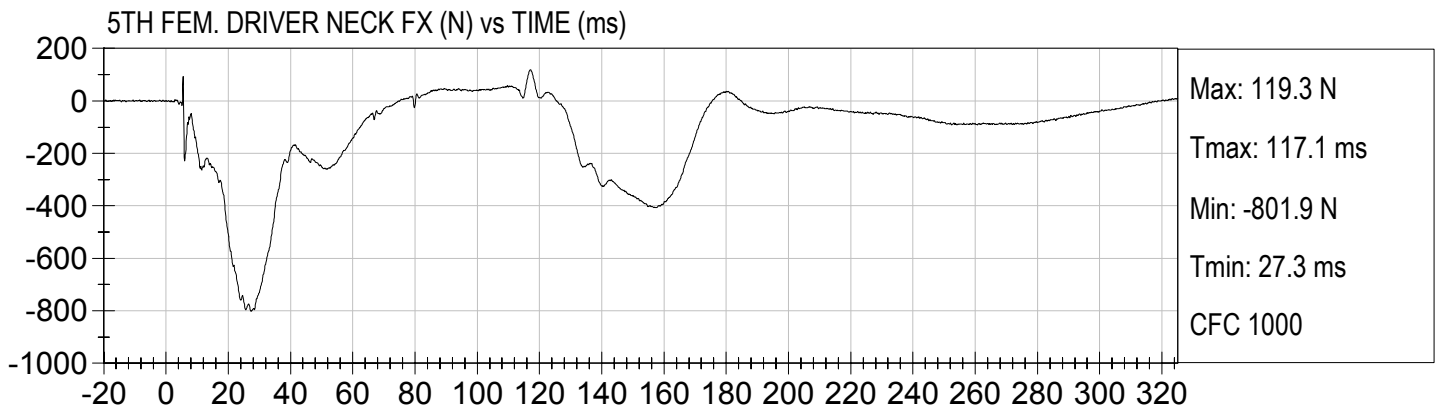


LOW RISK DEPLOYMENT

2005 Mercedes Benz C230 (C50500) (5TH P1 Trial 6)

Test Date: 07/07/05

Speed: 0.0 mph ( 0.0 km/h)



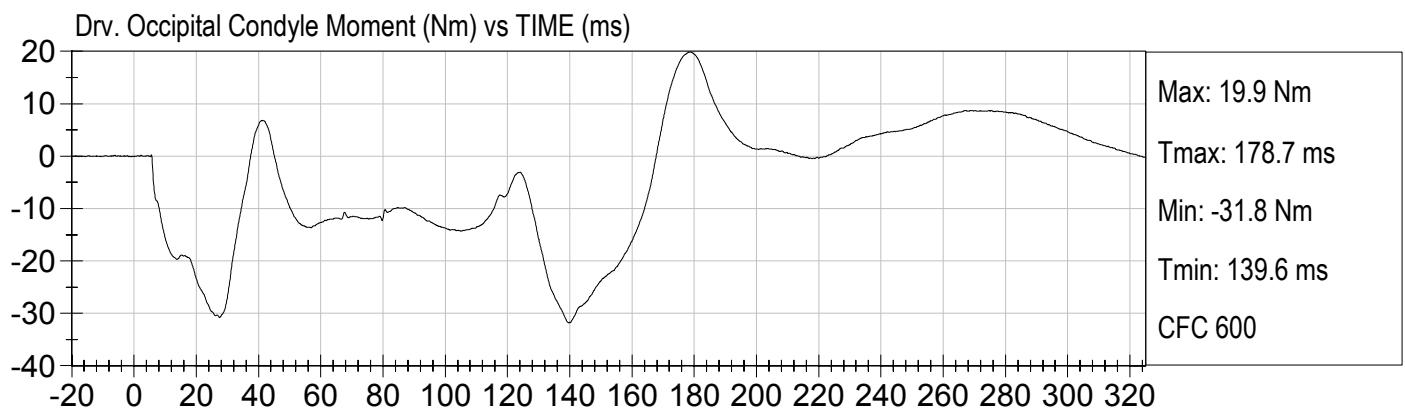
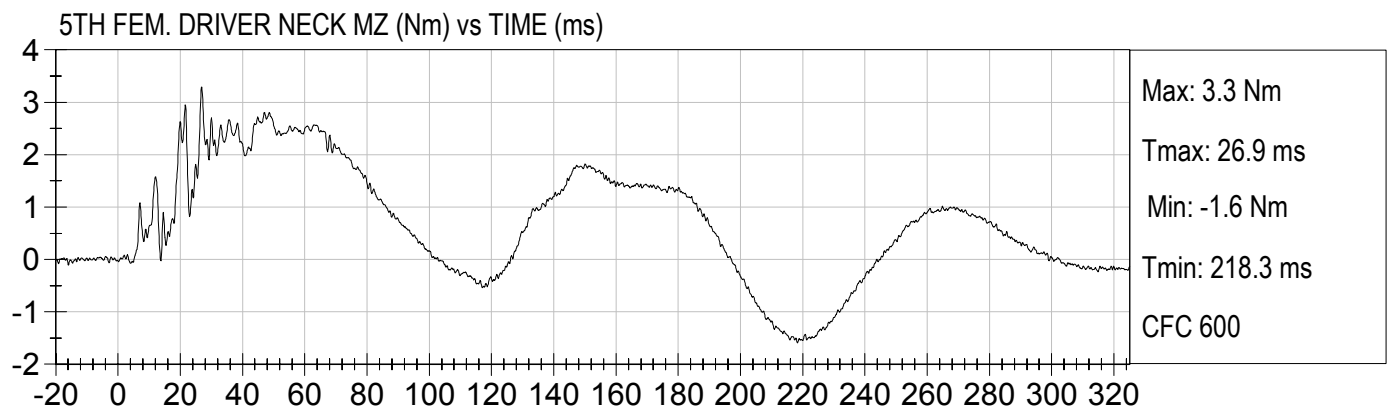
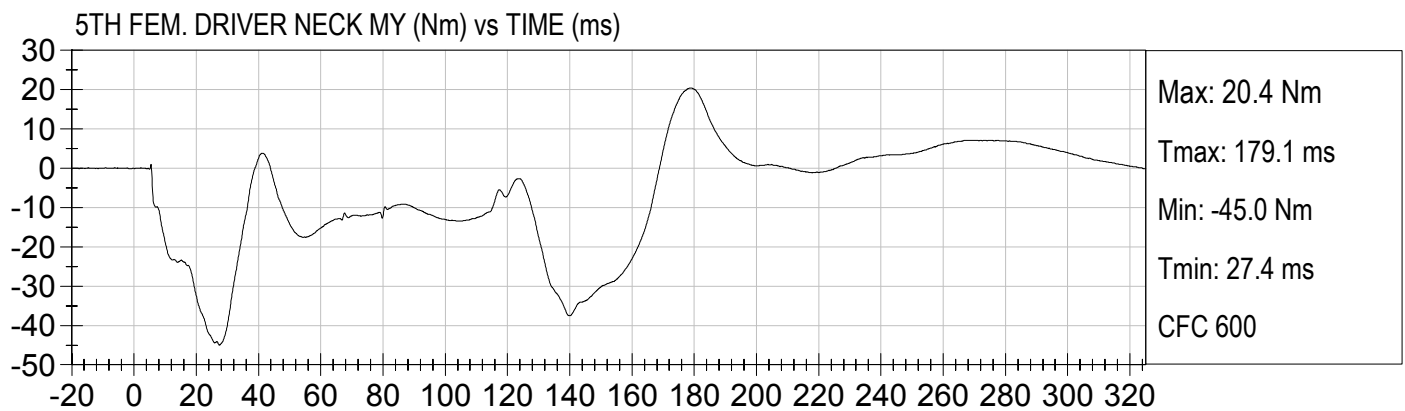
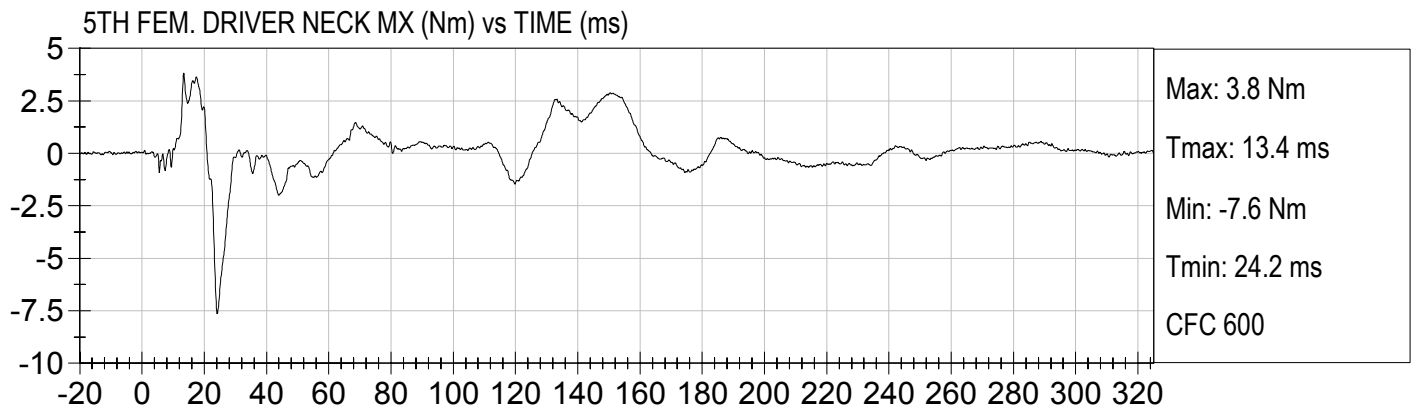


LOW RISK DEPLOYMENT

2005 Mercedes Benz C230 (C50500) (5TH P1 Trial 6)

Test Date: 07/07/05

Speed: 0.0 mph ( 0.0 km/h)





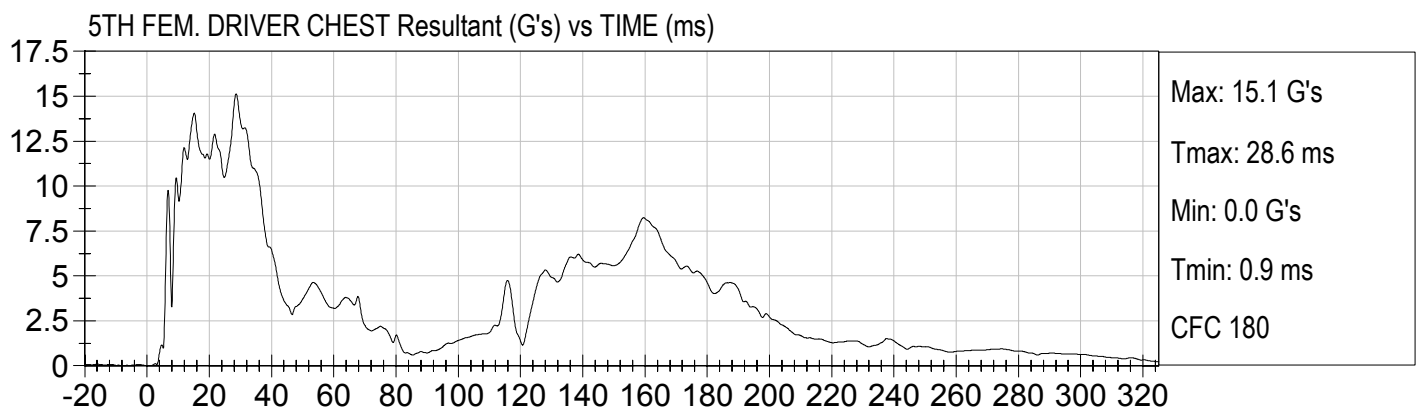
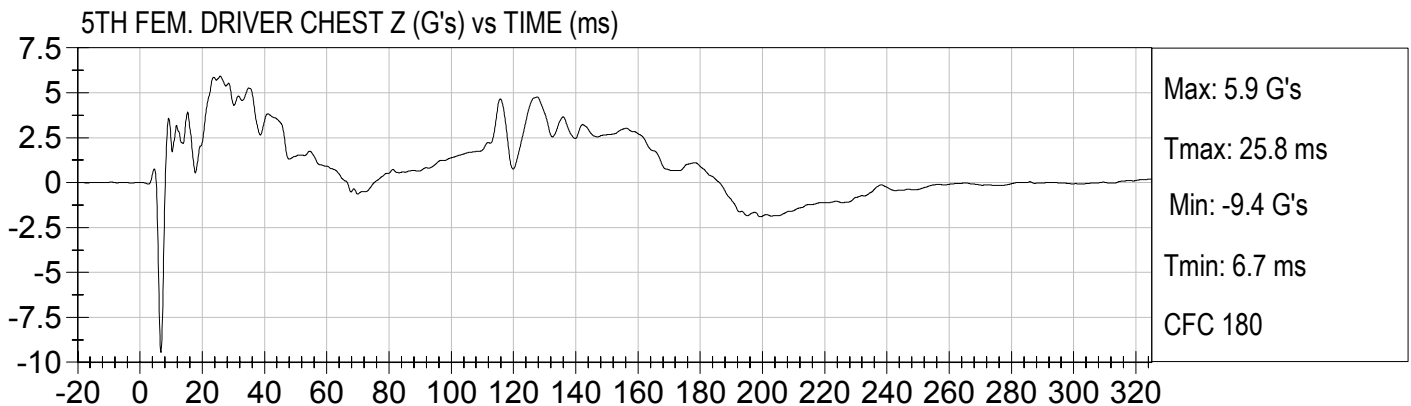
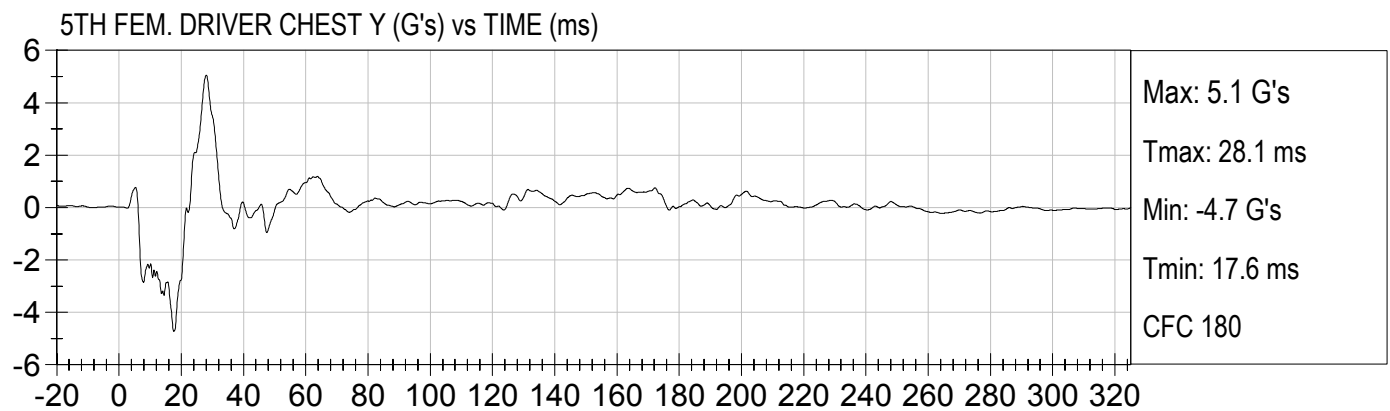
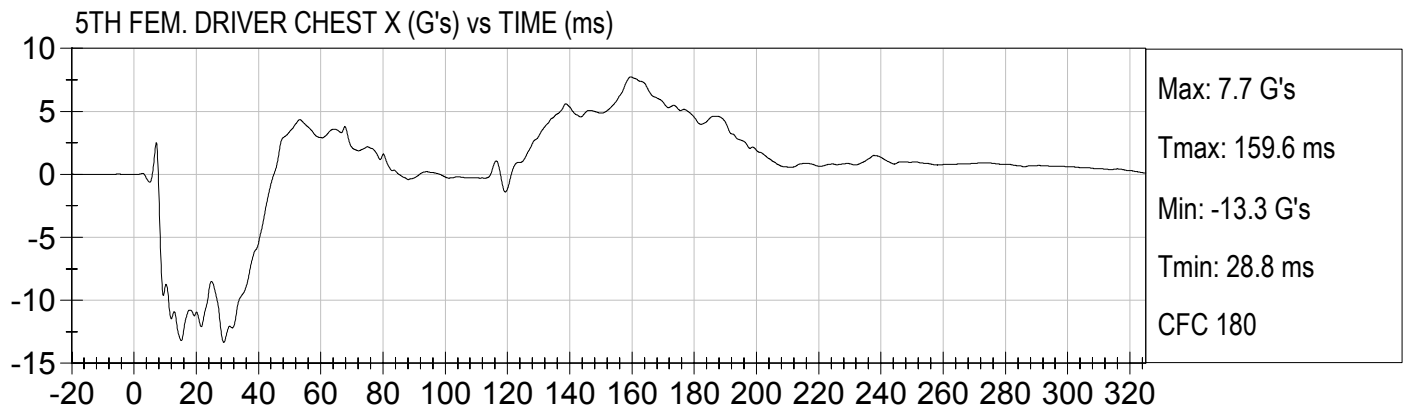


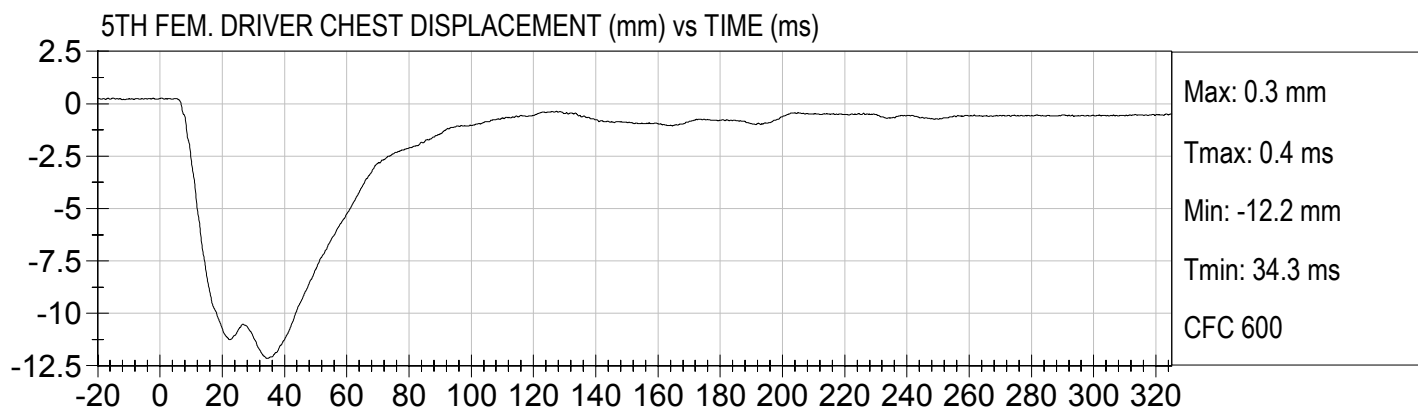
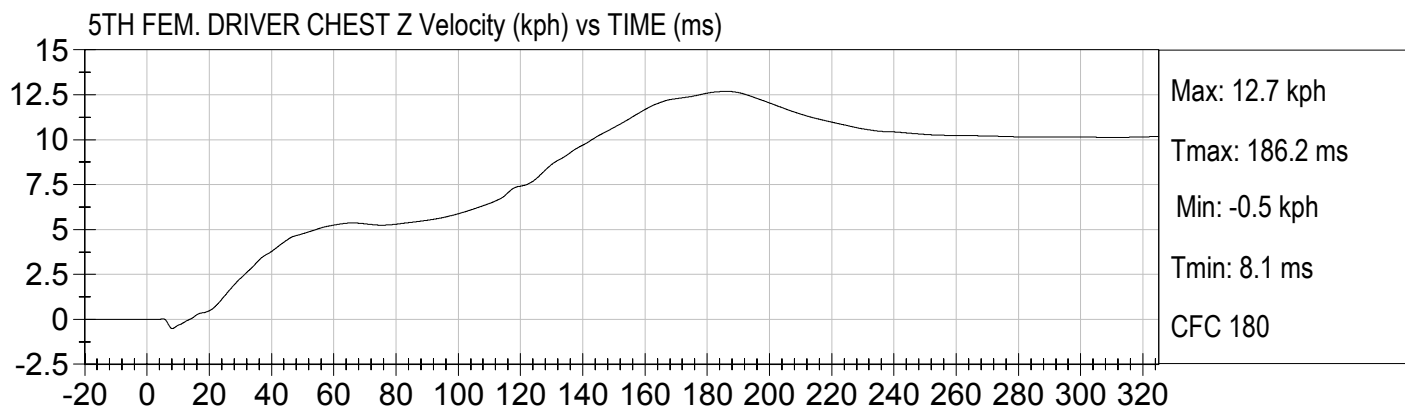
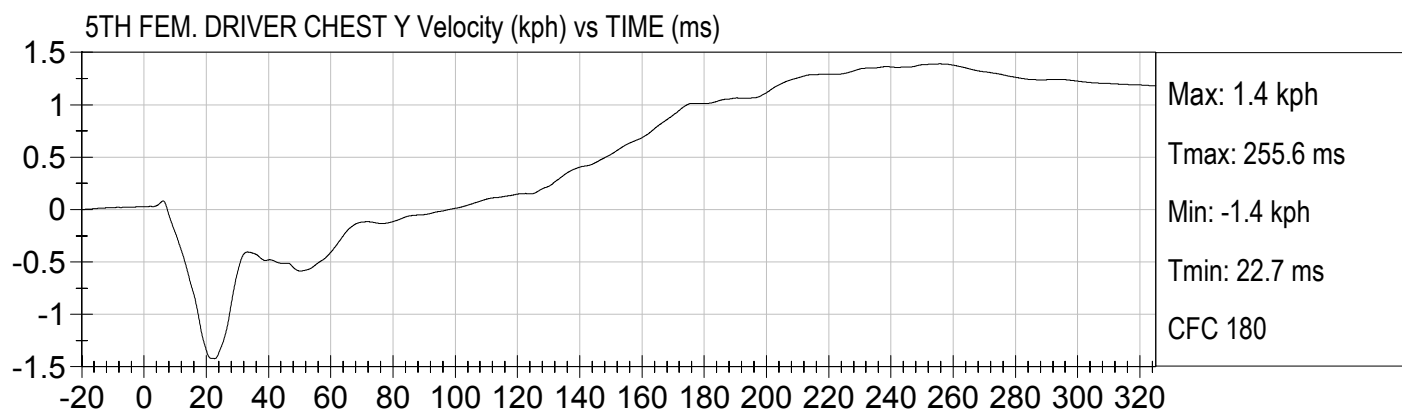
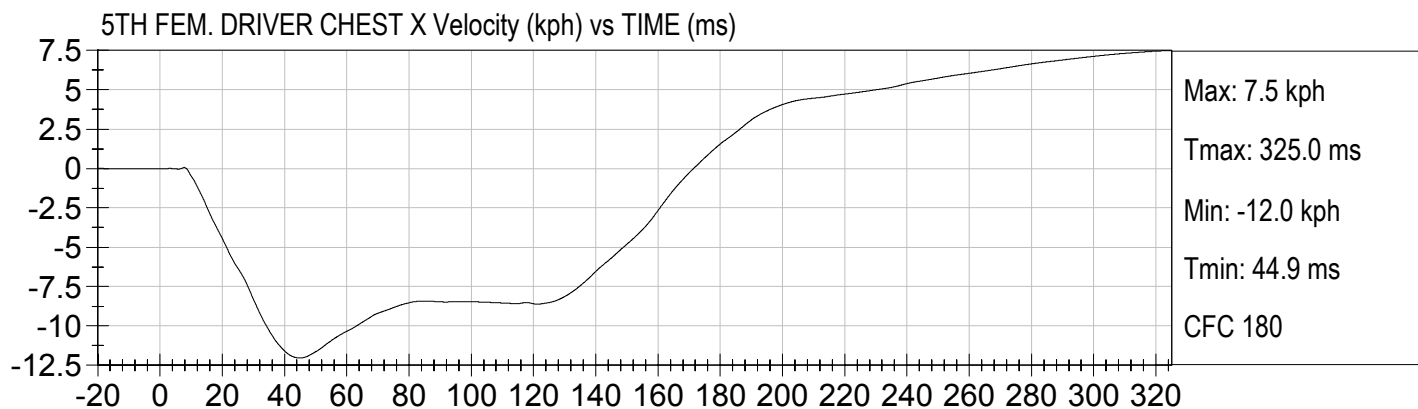
LOW RISK DEPLOYMENT

2005 Mercedes Benz C230 (C50500) (5TH P1 Trial 6)

Test Date: 07/07/05

Speed: 0.0 mph ( 0.0 km/h)







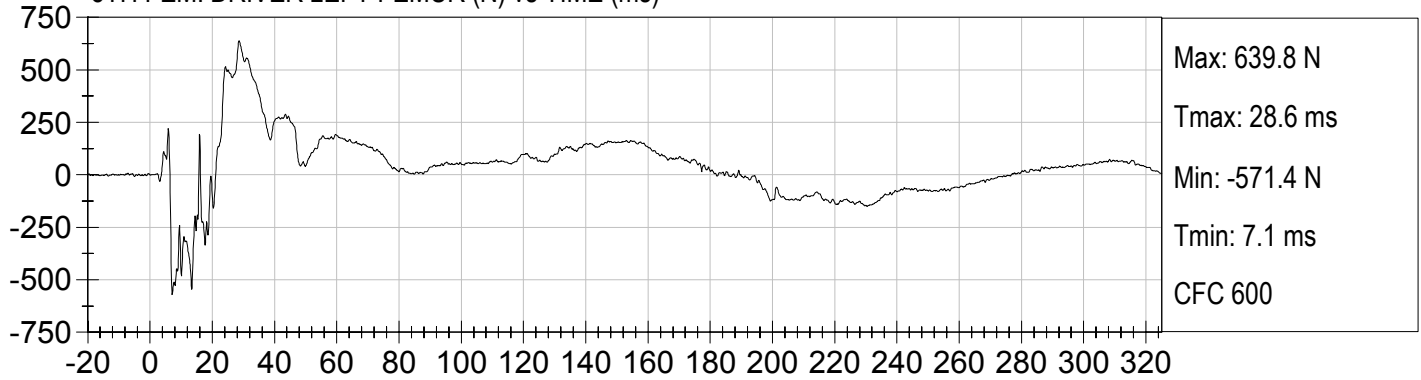
LOW RISK DEPLOYMENT

2005 Mercedes Benz C230 (C50500) (5TH P1 Trial 6)

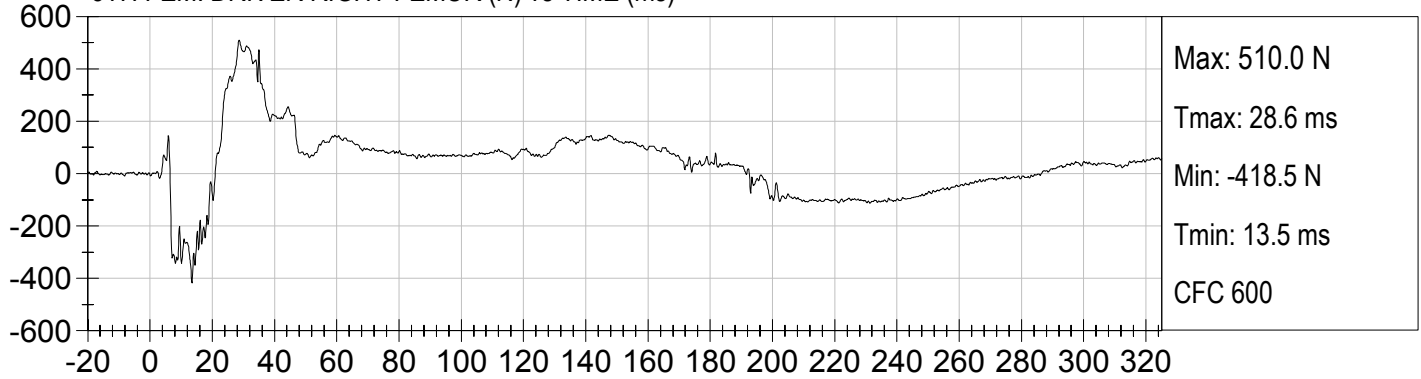
Test Date: 07/07/05

Speed: 0.0 mph ( 0.0 km/h)

5TH FEM. DRIVER LEFT FEMUR (N) vs TIME (ms)

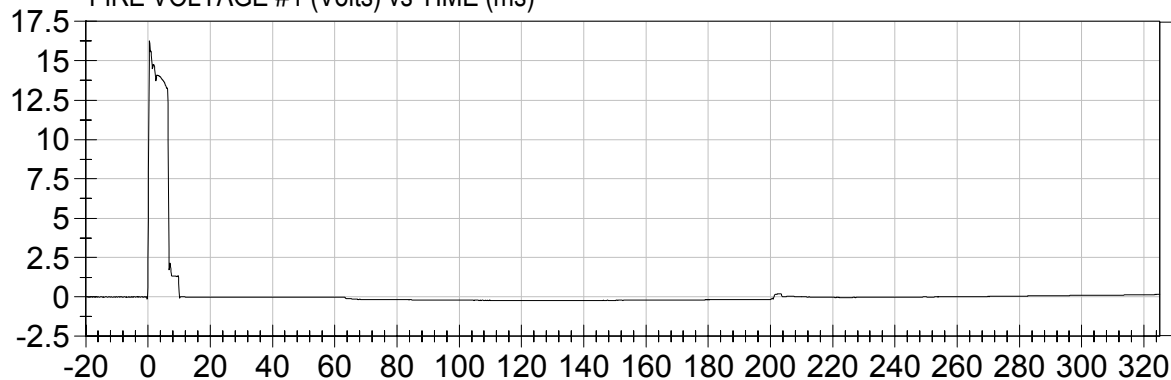


5TH FEM. DRIVER RIGHT FEMUR (N) vs TIME (ms)





FIRE VOLTAGE #1 (Volts) vs TIME (ms)



Max: 16.3 Volts

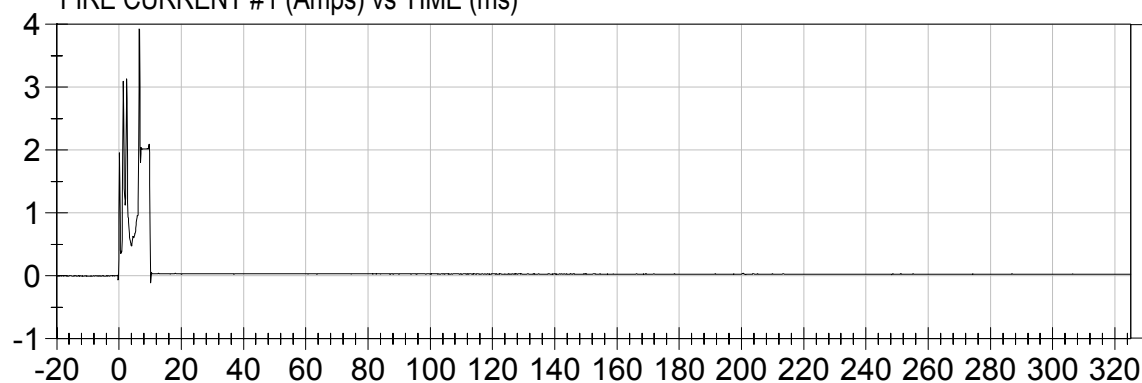
Tmax: 0.5 ms

Min: -0.2 Volts

Tmin: 132.7 ms

CFC 1000

FIRE CURRENT #1 (Amps) vs TIME (ms)



Max: 3.9 Amps

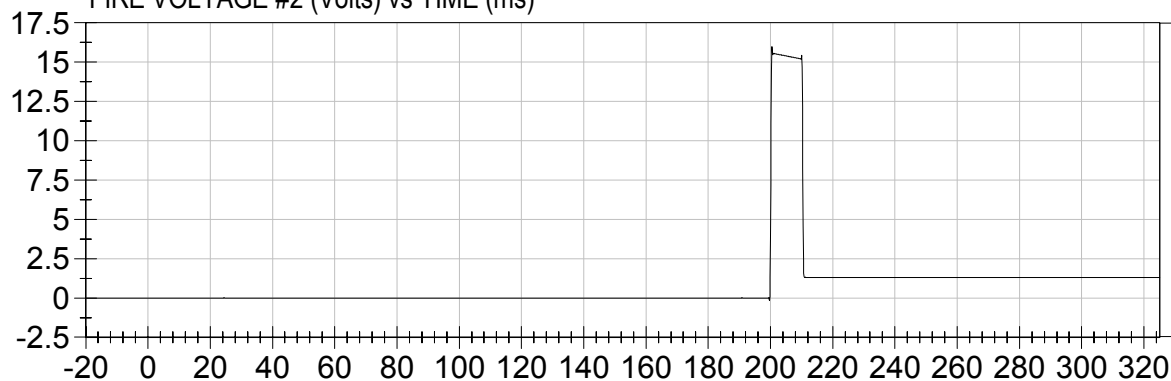
Tmax: 6.5 ms

Min: -0.1 Amps

Tmin: 10.2 ms

CFC 1000

FIRE VOLTAGE #2 (Volts) vs TIME (ms)



Max: 16.0 Volts

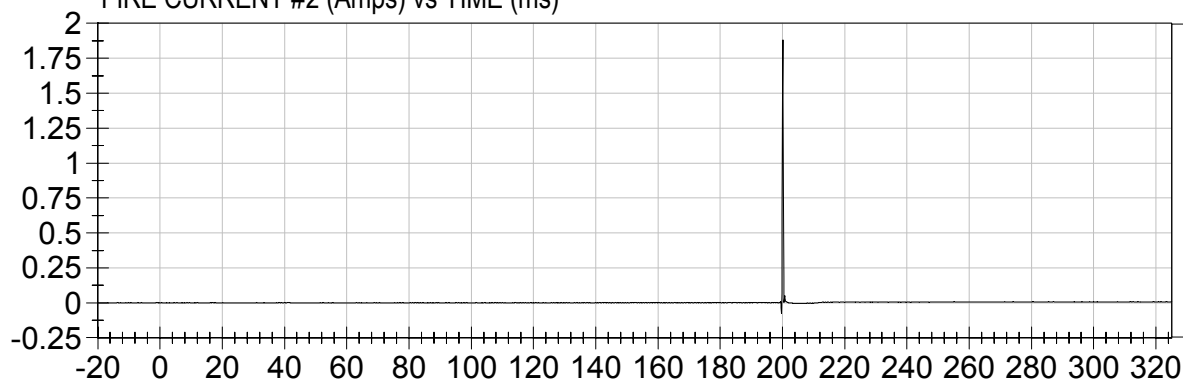
Tmax: 200.5 ms

Min: -0.2 Volts

Tmin: 199.7 ms

CFC 1000

FIRE CURRENT #2 (Amps) vs TIME (ms)



Max: 1.9 Amps

Tmax: 200.1 ms

Min: -0.1 Amps

Tmin: 199.7 ms

CFC 1000



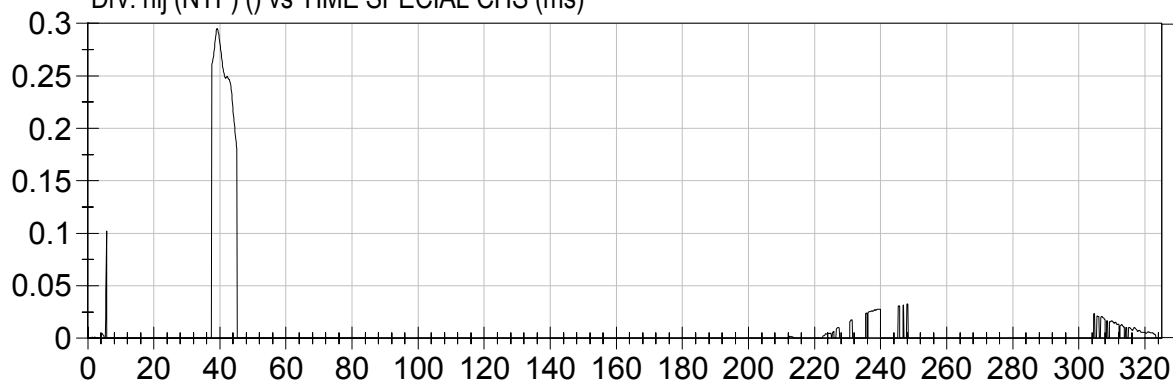
LOW RISK DEPLOYMENT

2005 Mercedes Benz C230 (C50500) (5TH P1 Trial 6)

Test Date: 07/07/05

Speed: 0.0 mph ( 0.0 km/h)

Drv. nij (NTF) ( ) vs TIME SPECIAL CHS (ms)



Max: 0.3

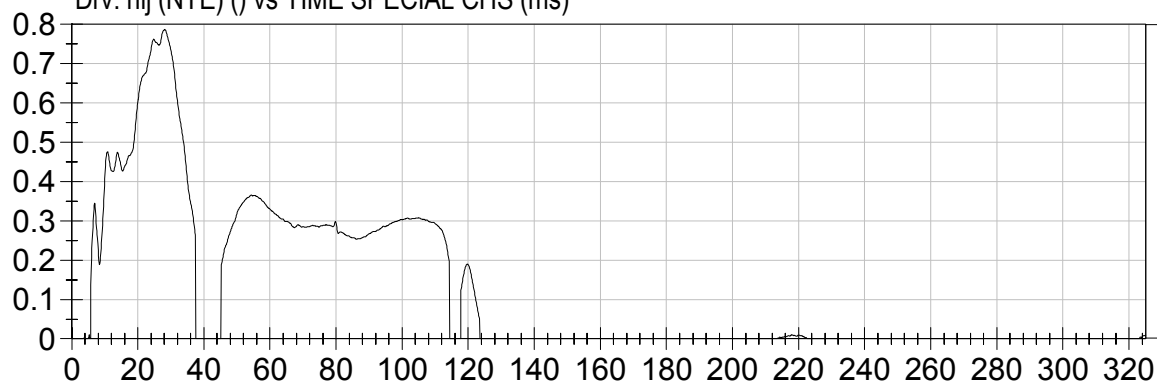
Tmax: 39.1 ms

Min: 0.0

Tmin: 0.1 ms

CFC 600

Drv. nij (NTE) ( ) vs TIME SPECIAL CHS (ms)



Max: 0.8

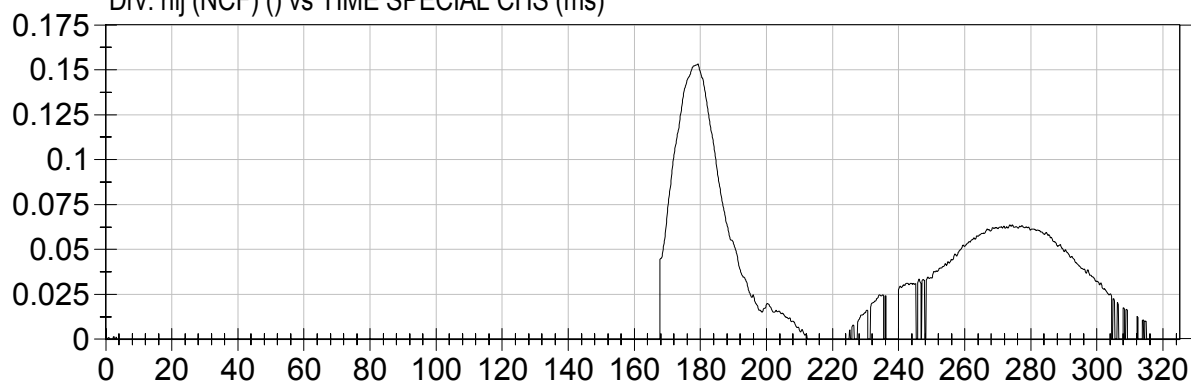
Tmax: 28.2 ms

Min: 0.0

Tmin: 0.1 ms

CFC 600

Drv. nij (NCF) ( ) vs TIME SPECIAL CHS (ms)



Max: 0.2

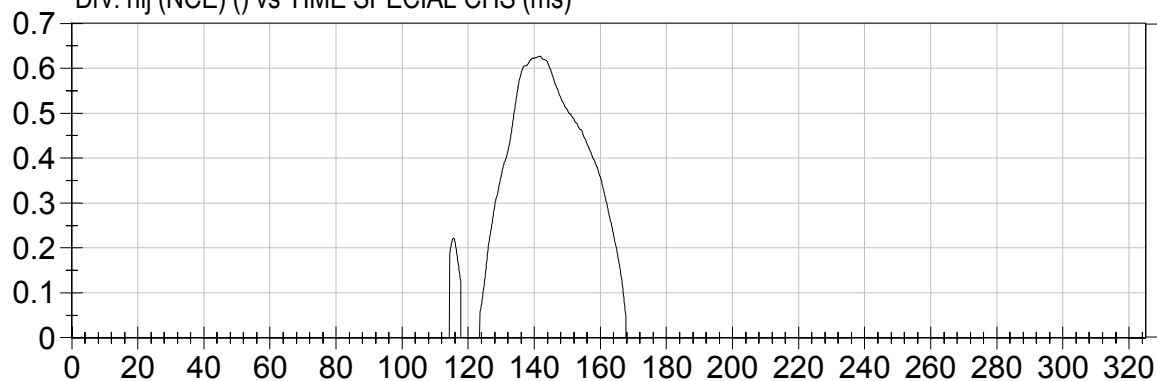
Tmax: 179.2 ms

Min: 0.0

Tmin: 0.1 ms

CFC 600

Drv. nij (NCE) ( ) vs TIME SPECIAL CHS (ms)



Max: 0.6

Tmax: 141.7 ms

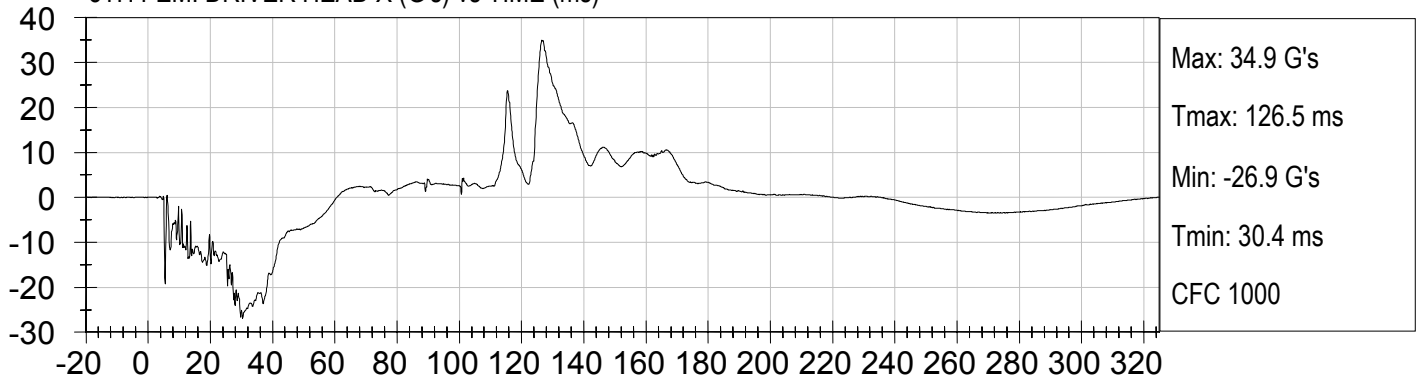
Min: 0.0

Tmin: 0.5 ms

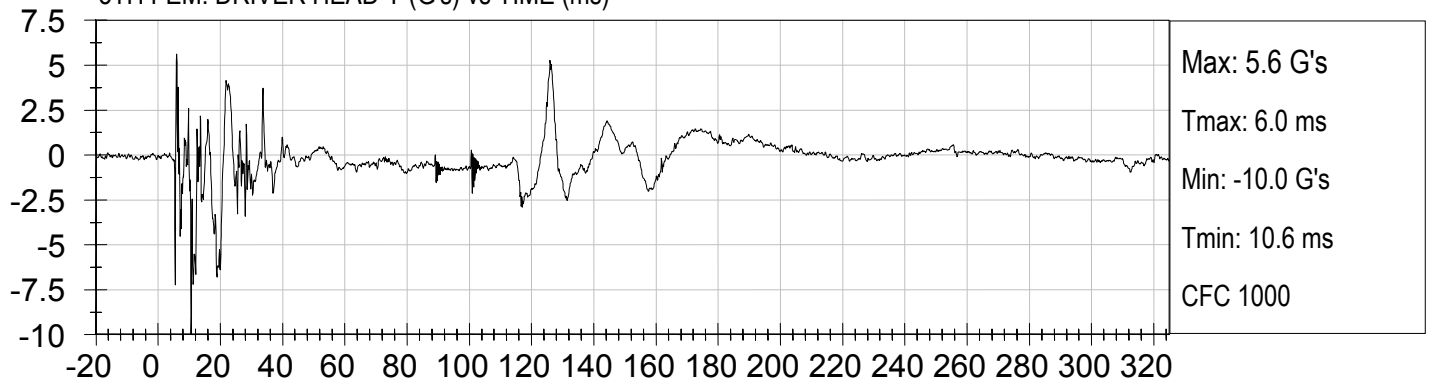
CFC 600



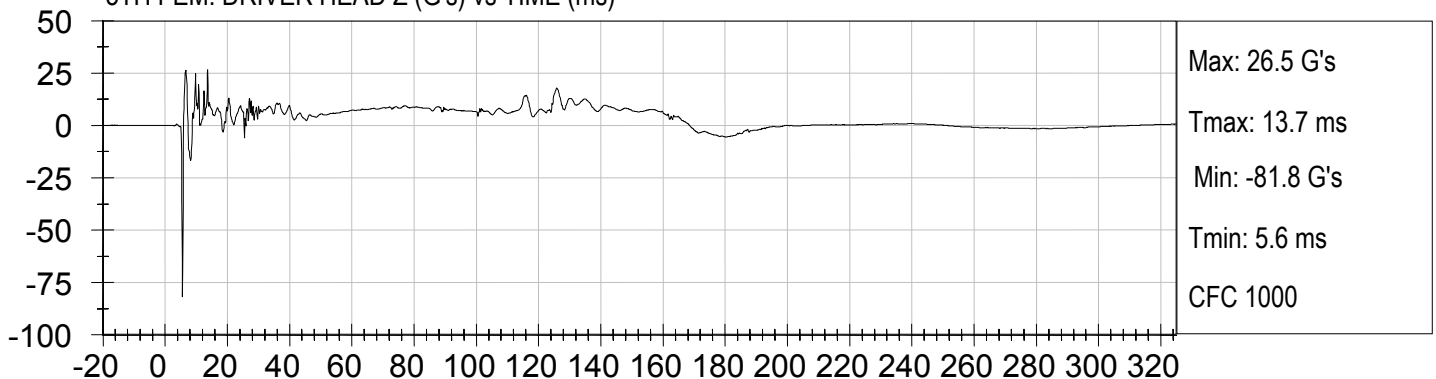
5TH FEM. DRIVER HEAD X (G's) vs TIME (ms)



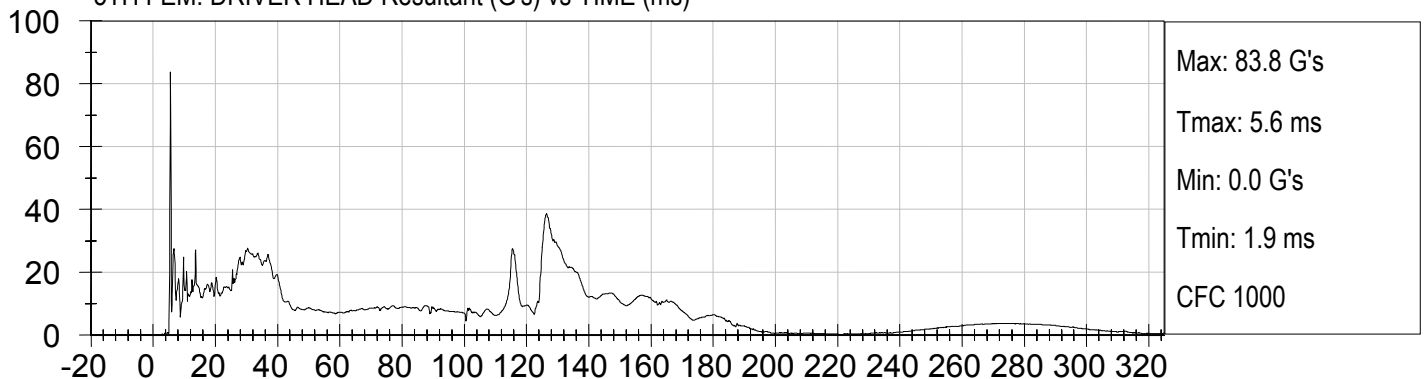
5TH FEM. DRIVER HEAD Y (G's) vs TIME (ms)

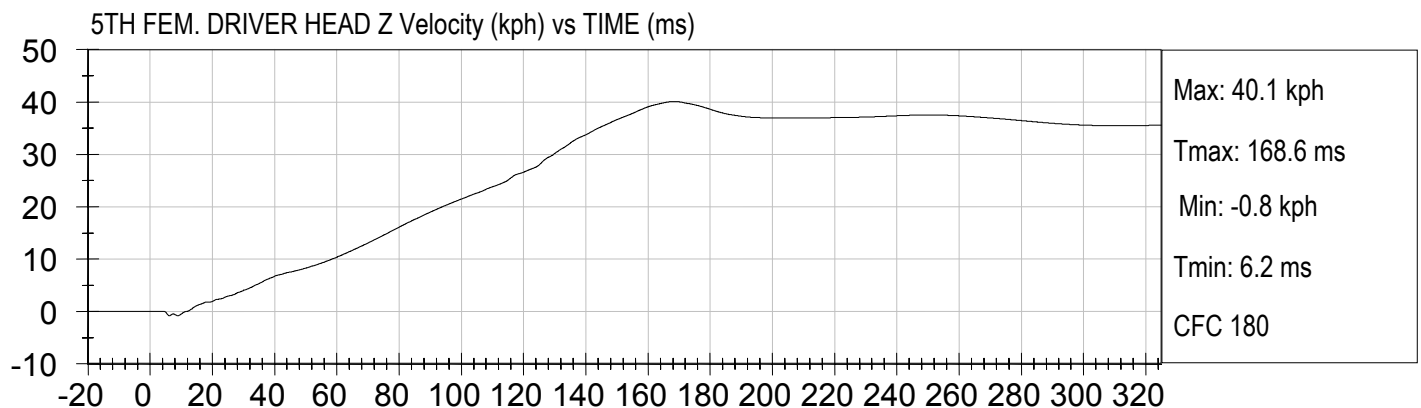
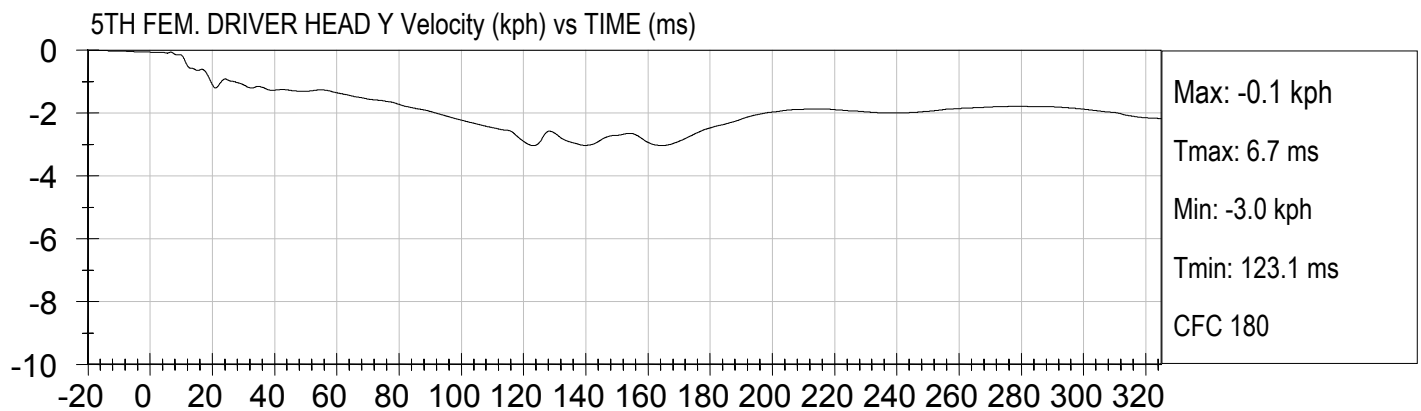
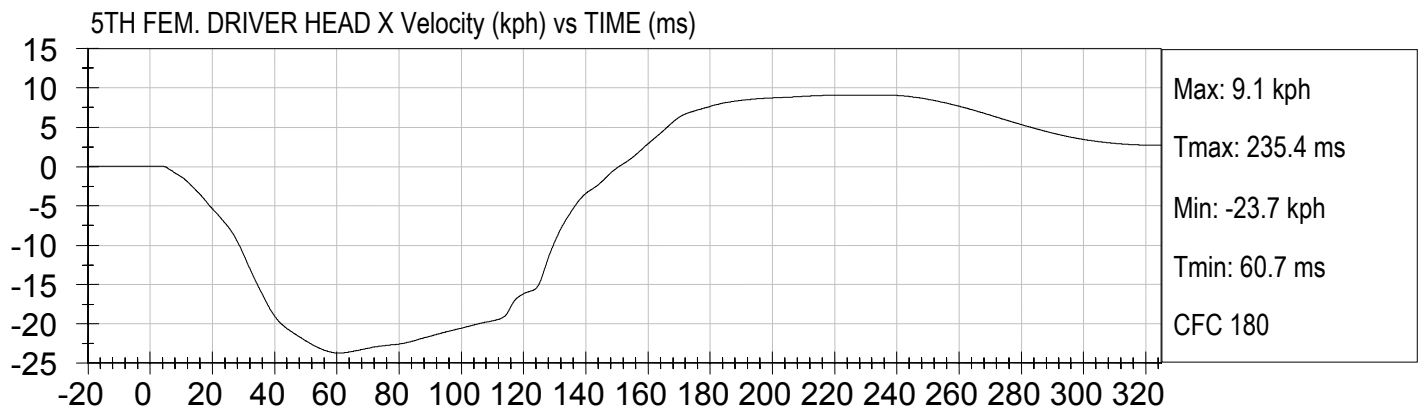


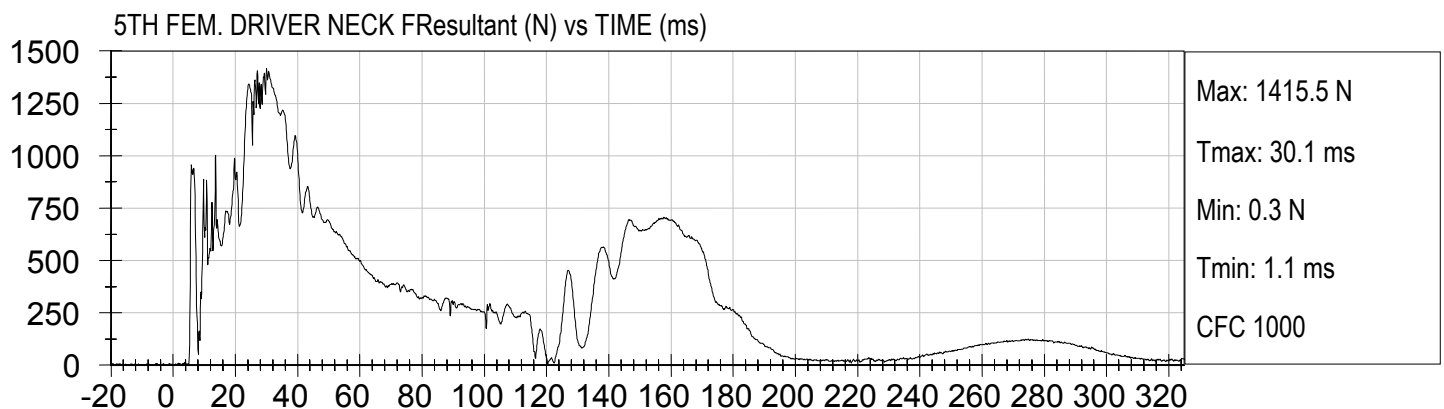
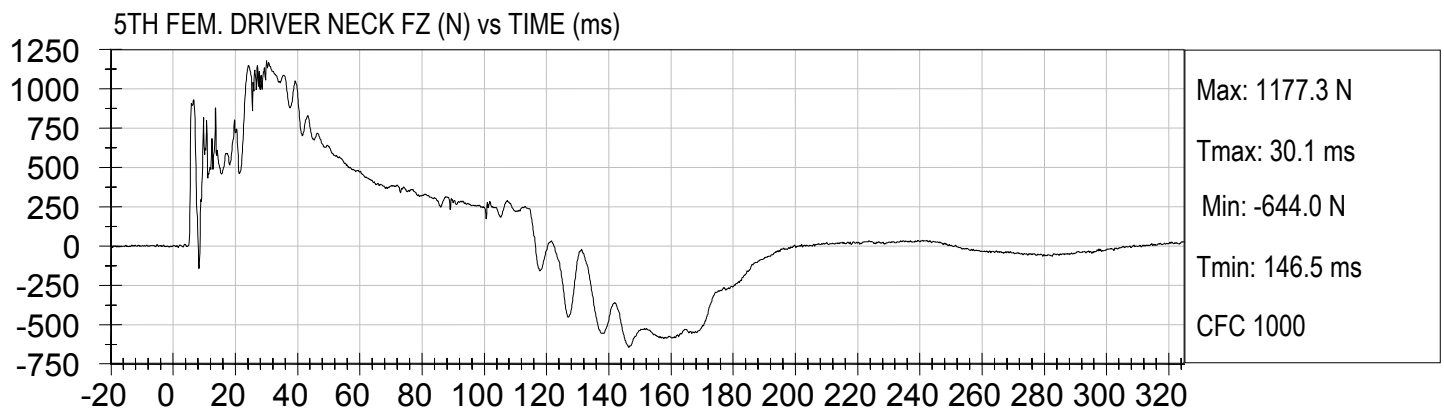
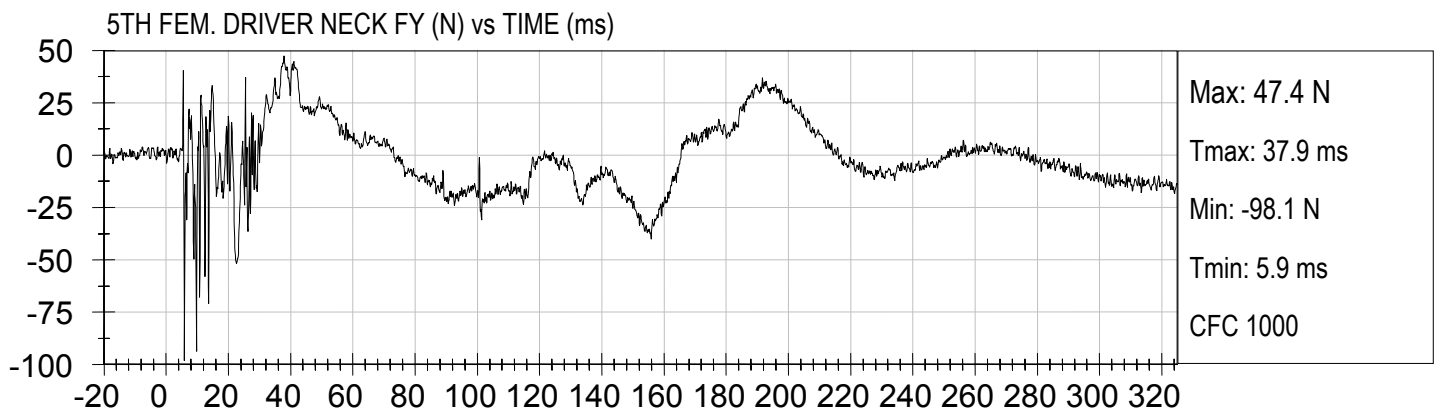
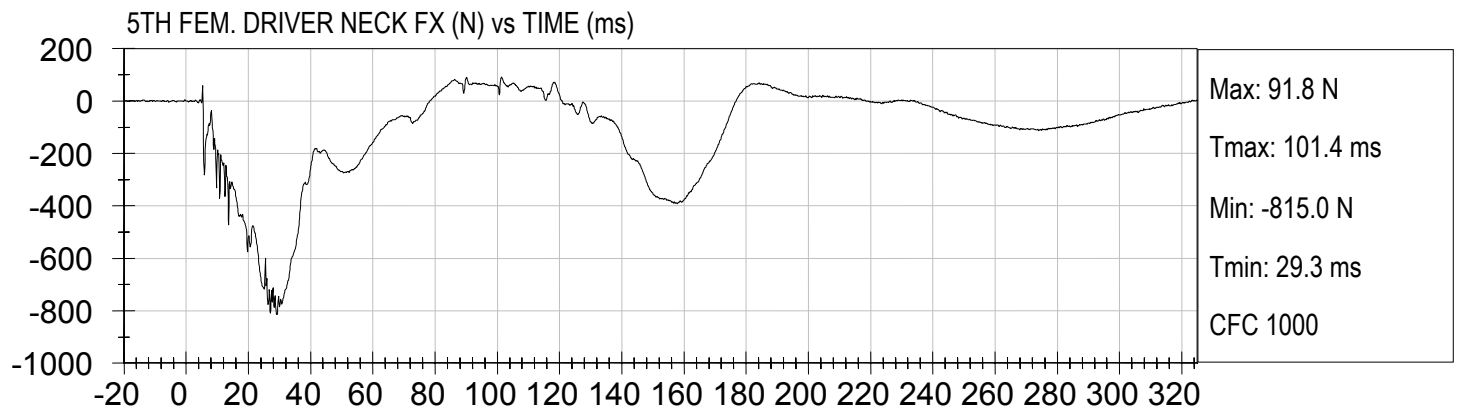
5TH FEM. DRIVER HEAD Z (G's) vs TIME (ms)



5TH FEM. DRIVER HEAD Resultant (G's) vs TIME (ms)



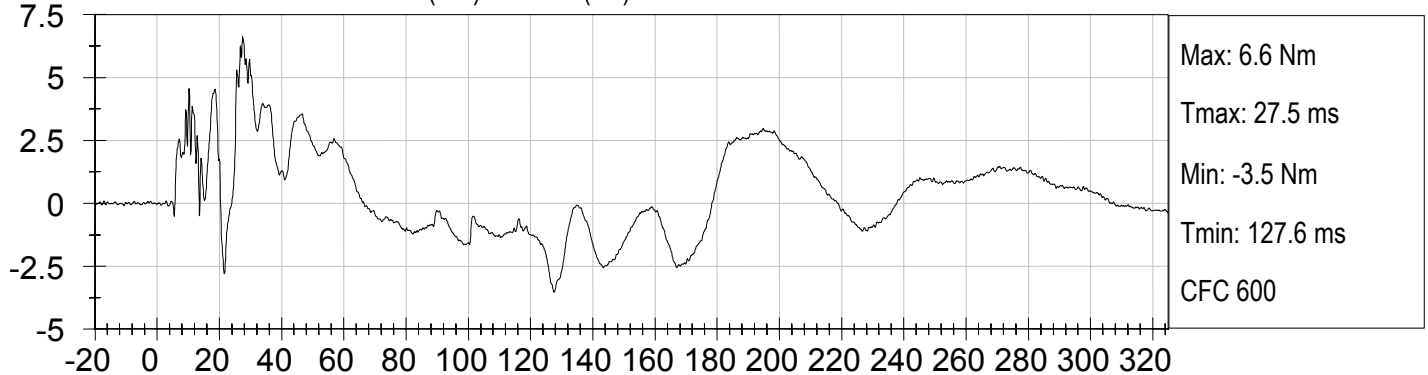




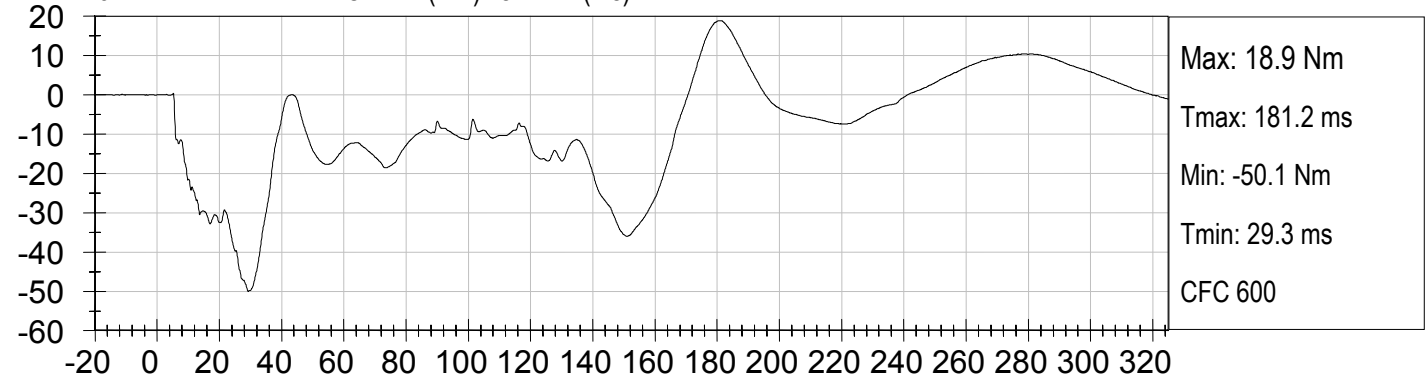




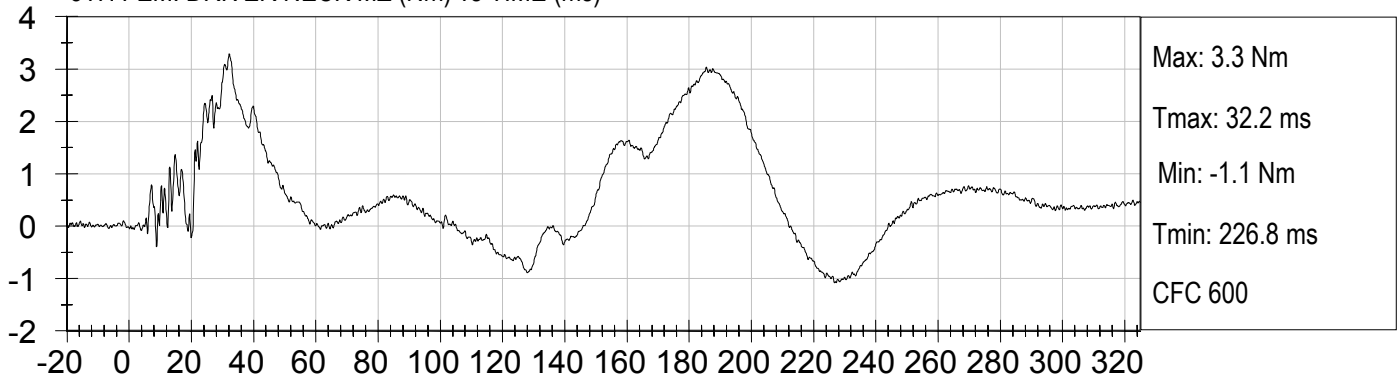
5TH FEM. DRIVER NECK MX (Nm) vs TIME (ms)



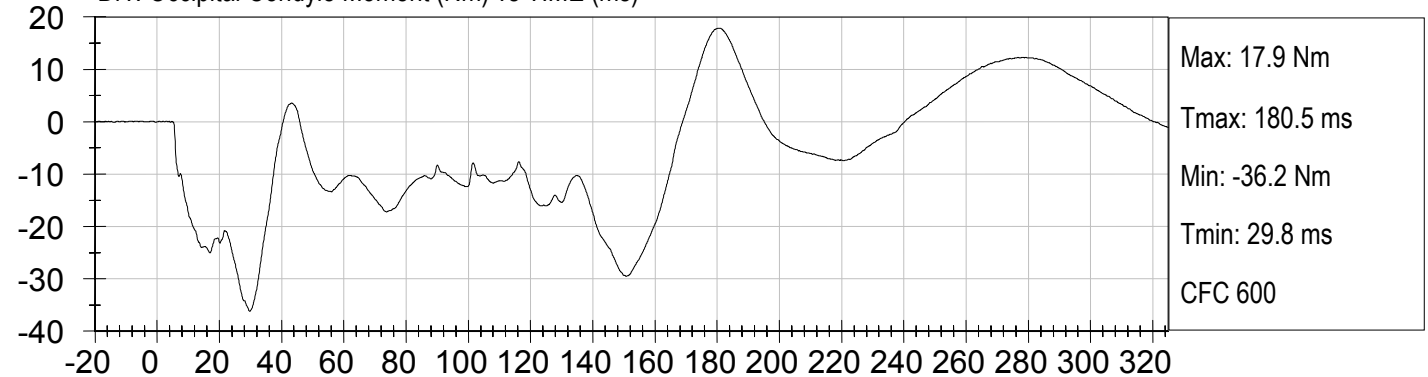
5TH FEM. DRIVER NECK MY (Nm) vs TIME (ms)

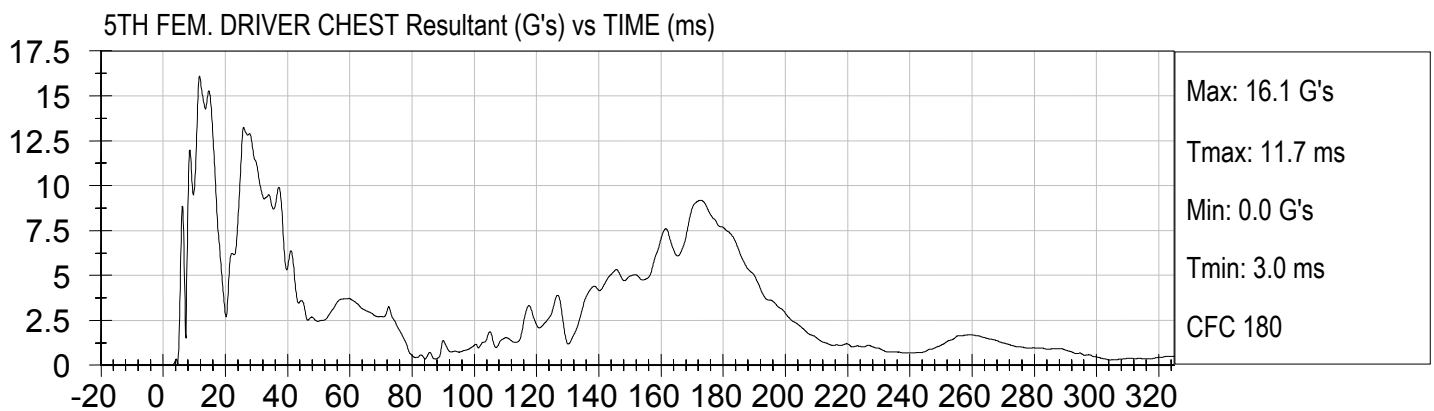
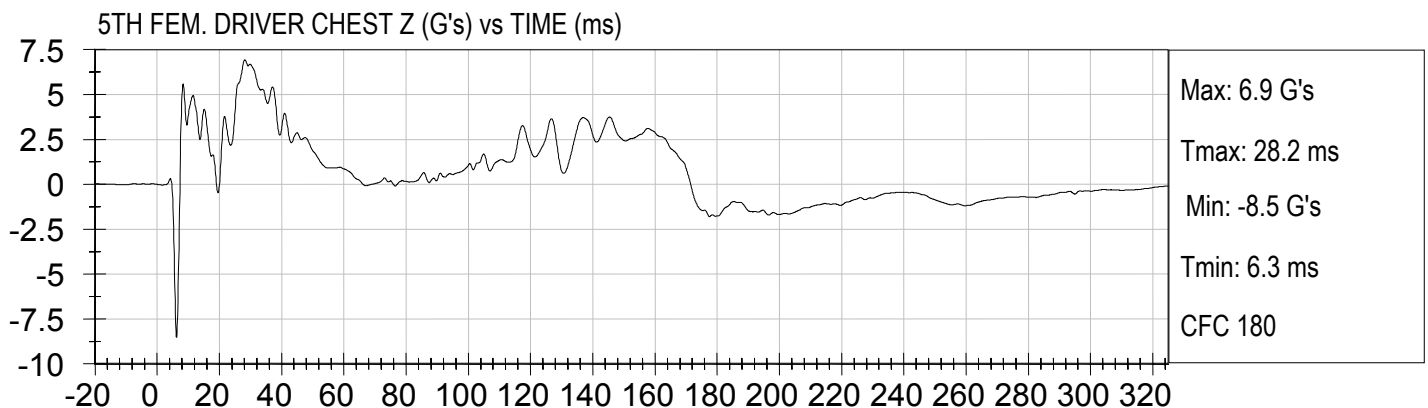
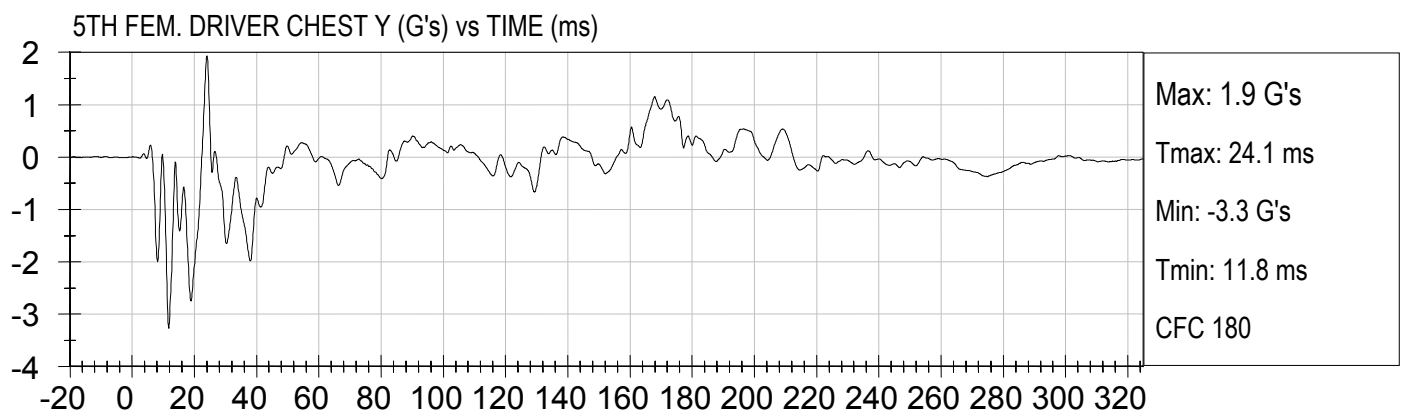
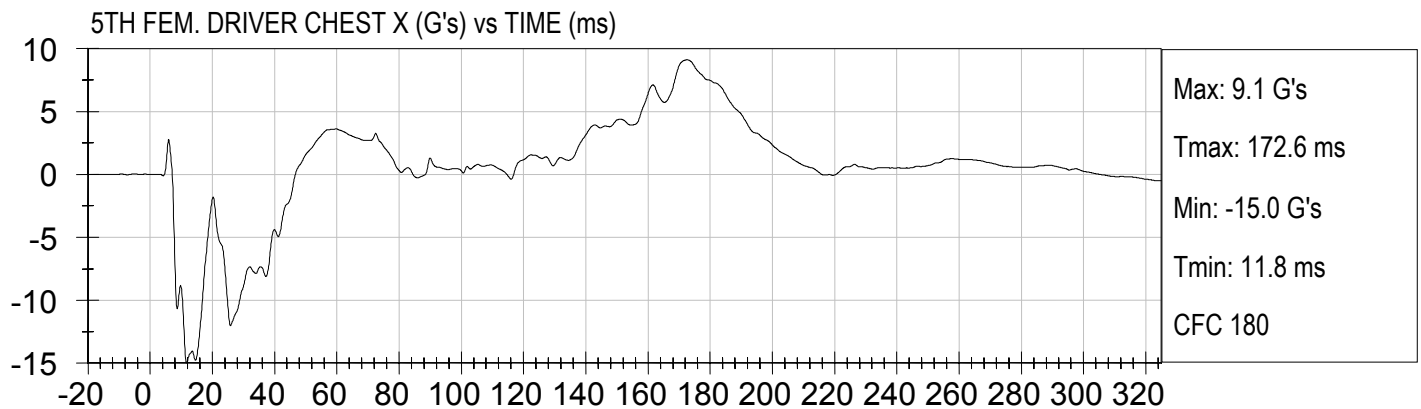


5TH FEM. DRIVER NECK MZ (Nm) vs TIME (ms)



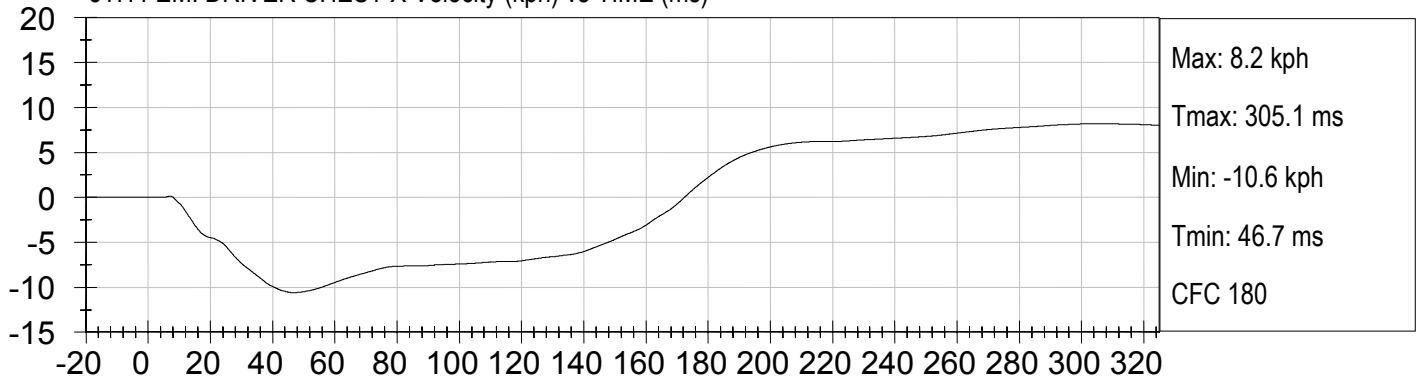
Drv. Occipital Condyle Moment (Nm) vs TIME (ms)



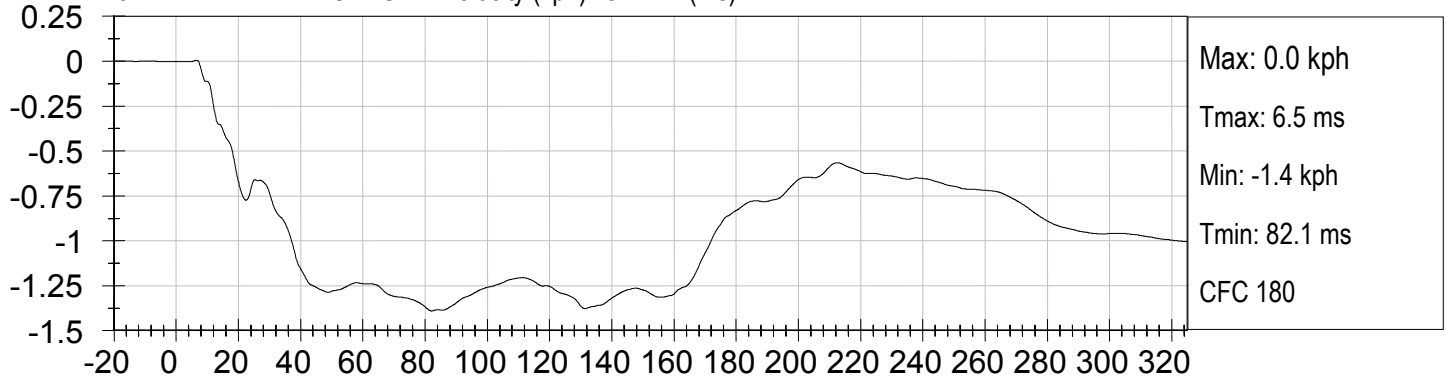




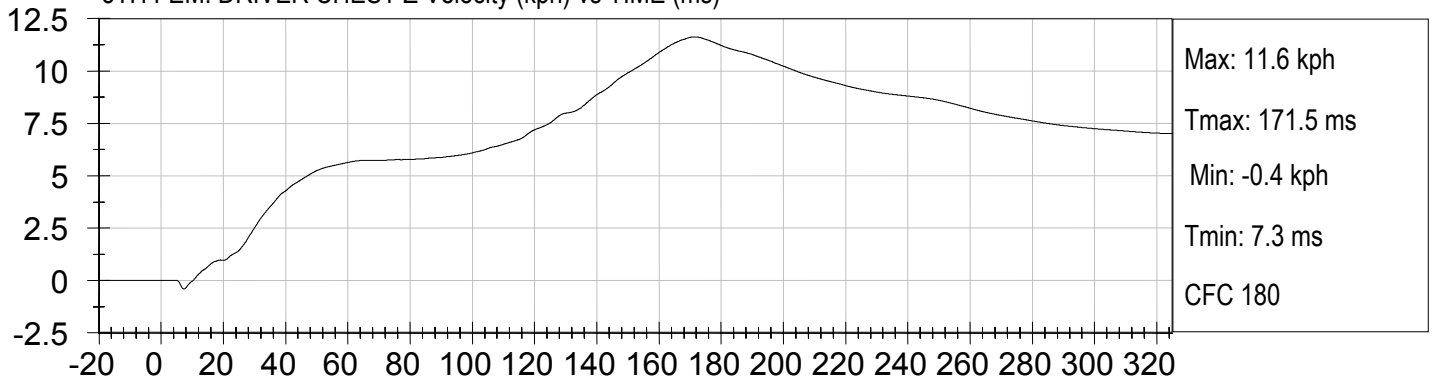
5TH FEM. DRIVER CHEST X Velocity (kph) vs TIME (ms)



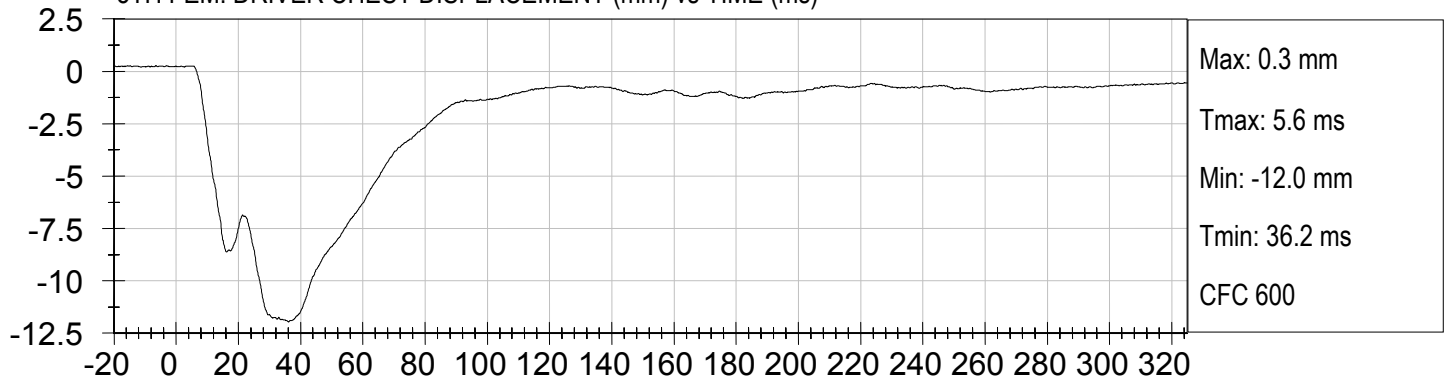
5TH FEM. DRIVER CHEST Y Velocity (kph) vs TIME (ms)

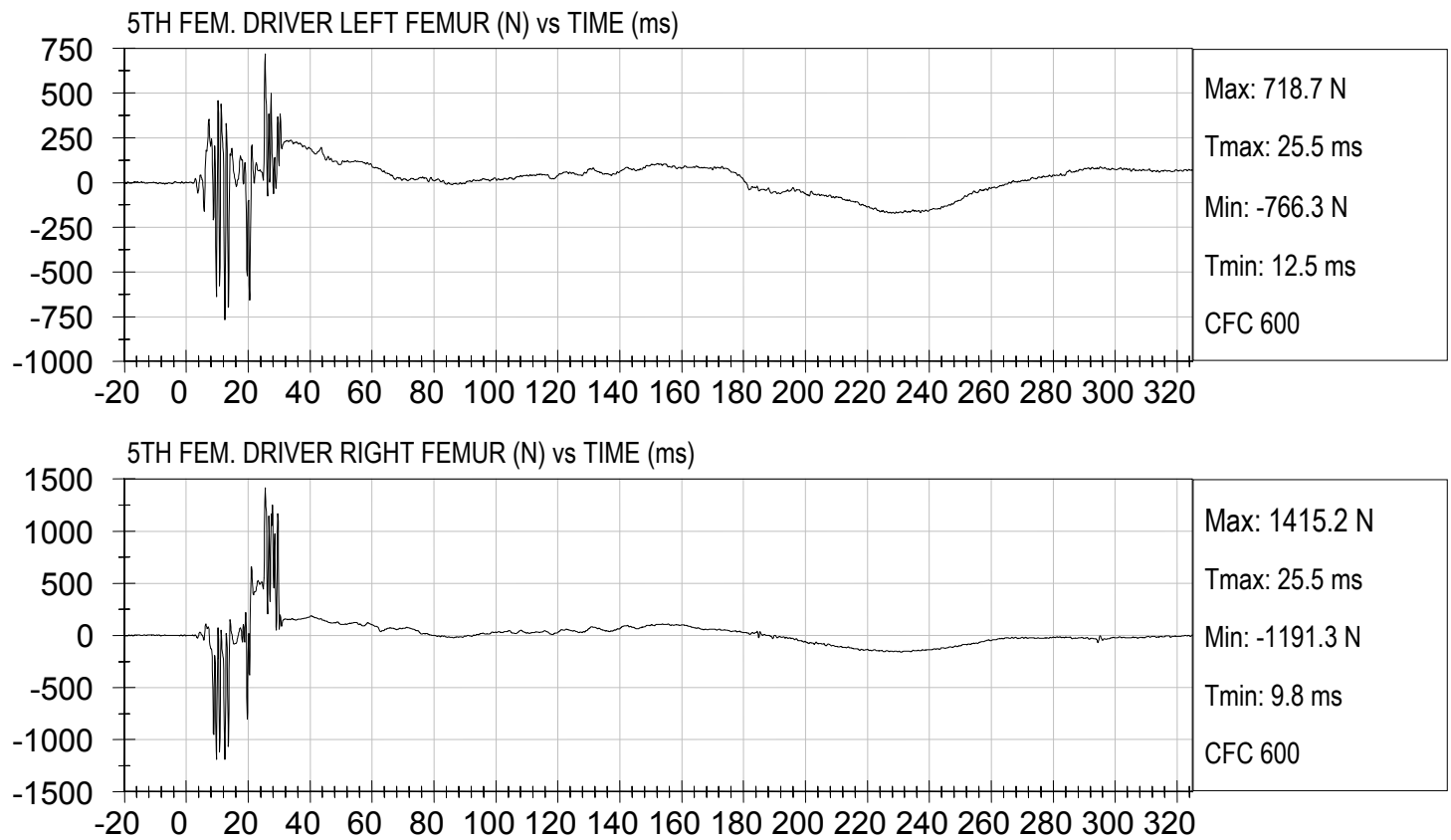


5TH FEM. DRIVER CHEST Z Velocity (kph) vs TIME (ms)



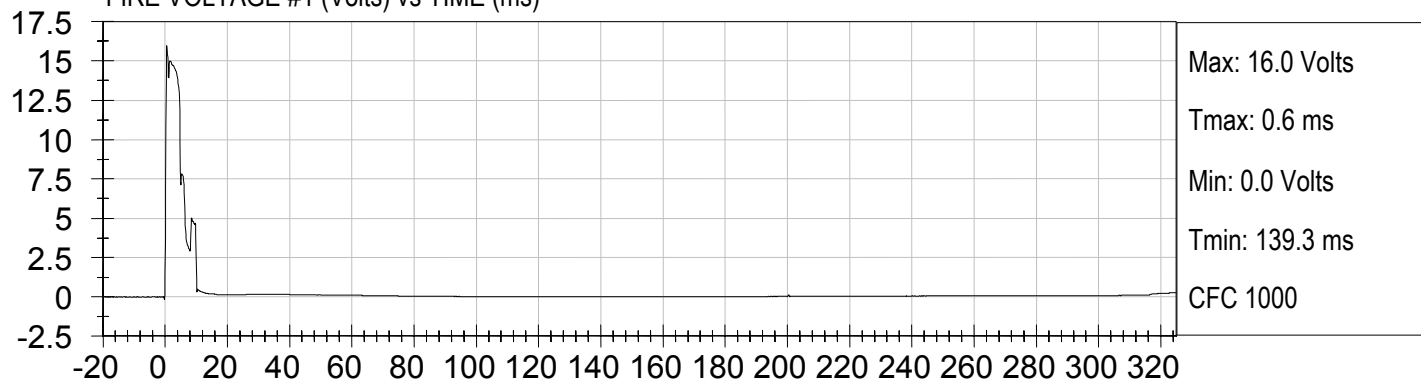
5TH FEM. DRIVER CHEST DISPLACEMENT (mm) vs TIME (ms)



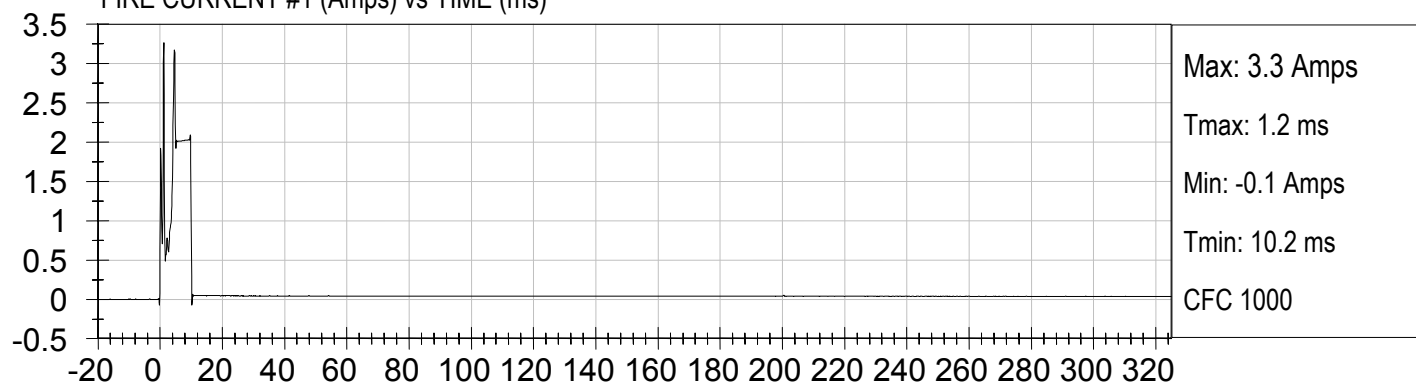




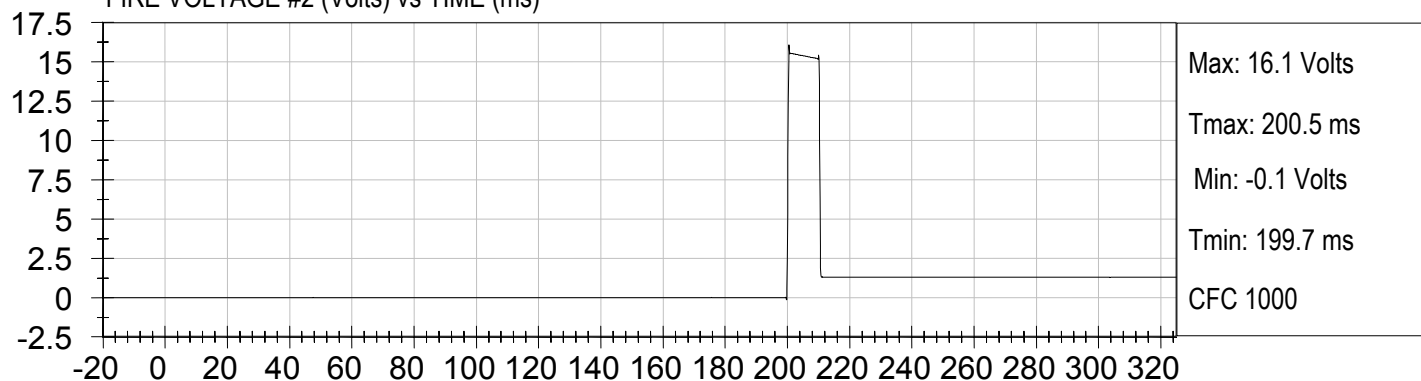
FIRE VOLTAGE #1 (Volts) vs TIME (ms)



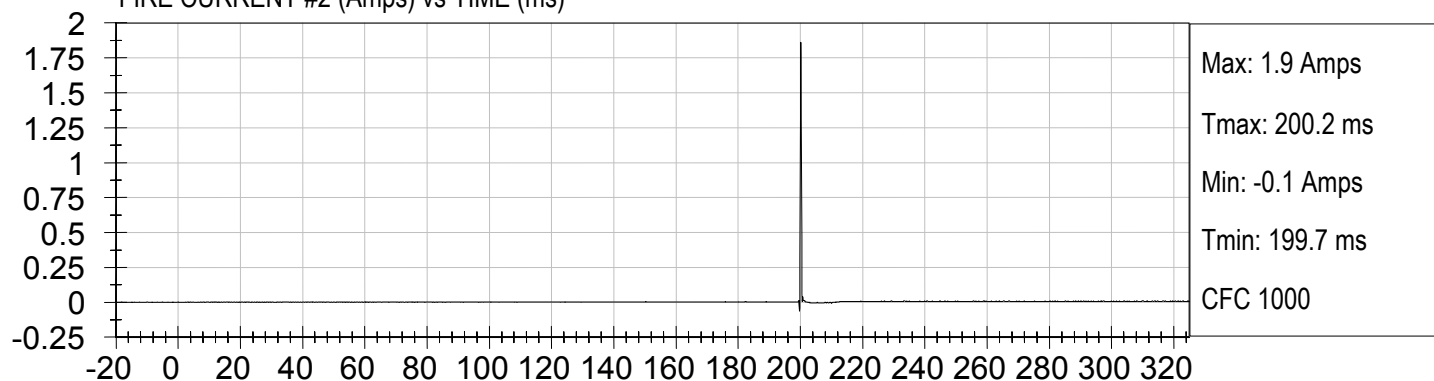
FIRE CURRENT #1 (Amps) vs TIME (ms)



FIRE VOLTAGE #2 (Volts) vs TIME (ms)

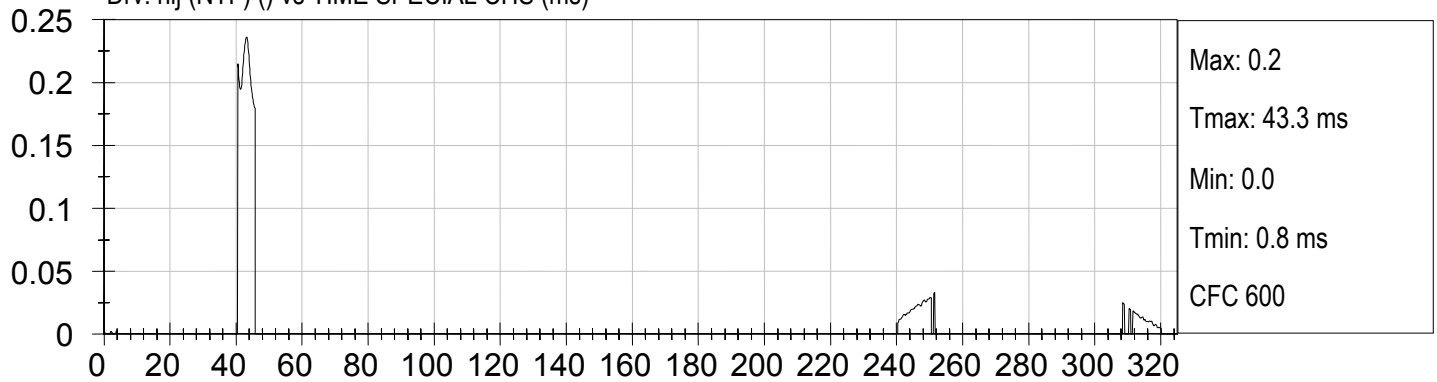


FIRE CURRENT #2 (Amps) vs TIME (ms)

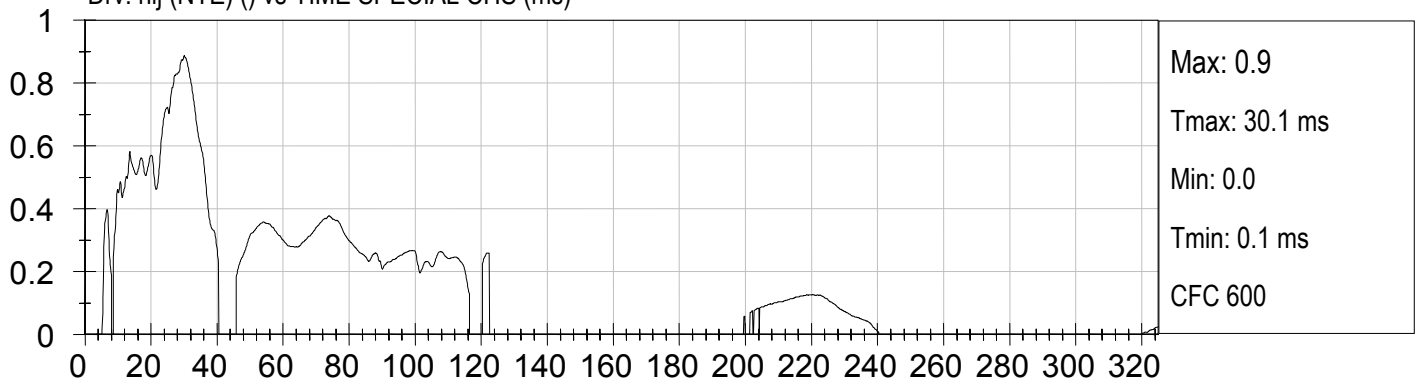




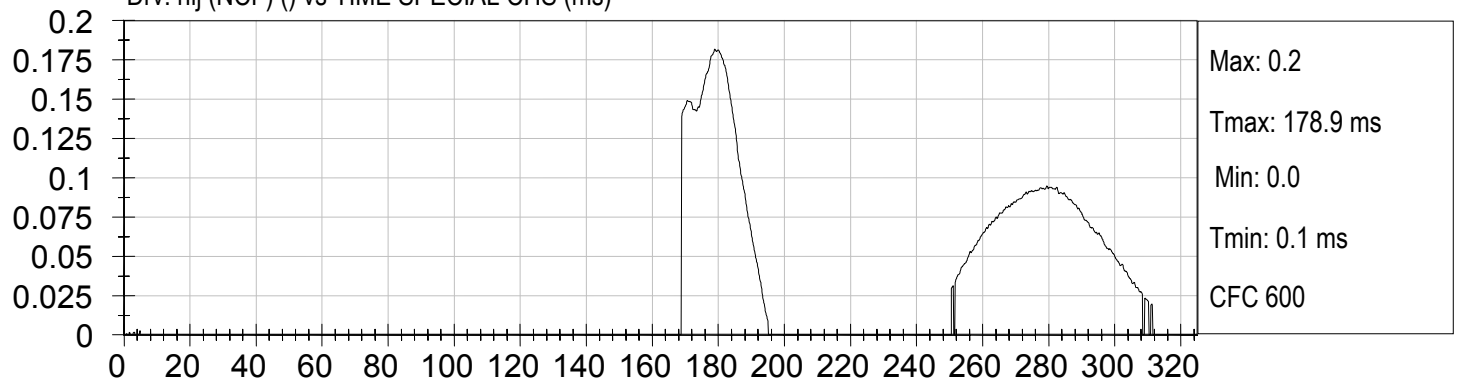
Drv. nij (NTF) () vs TIME SPECIAL CHS (ms)



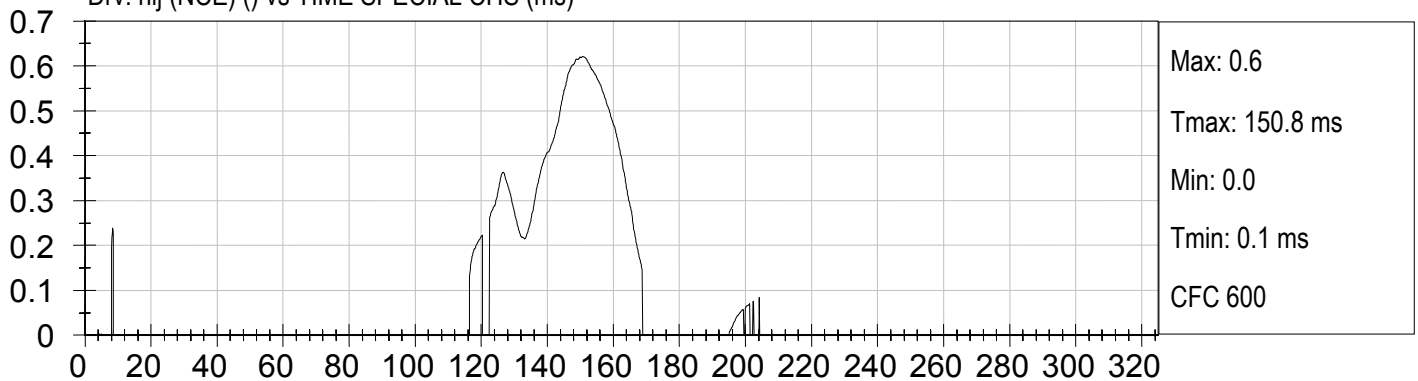
Drv. nij (NTE) () vs TIME SPECIAL CHS (ms)

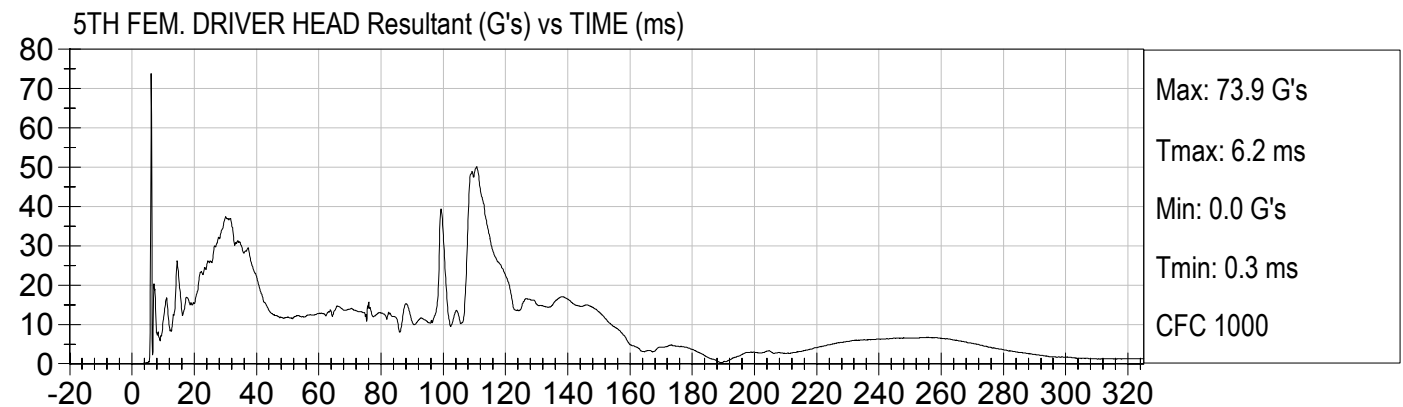
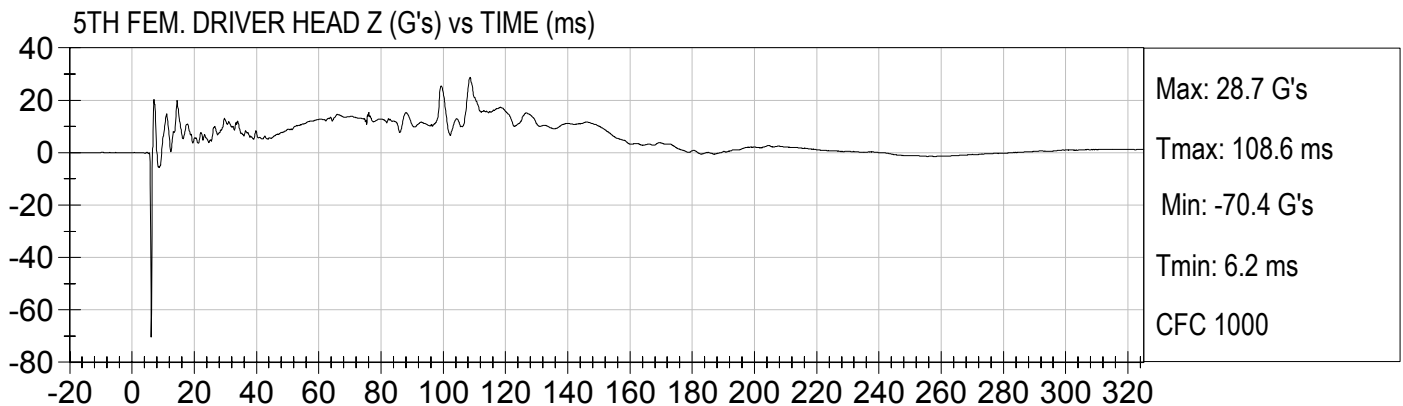
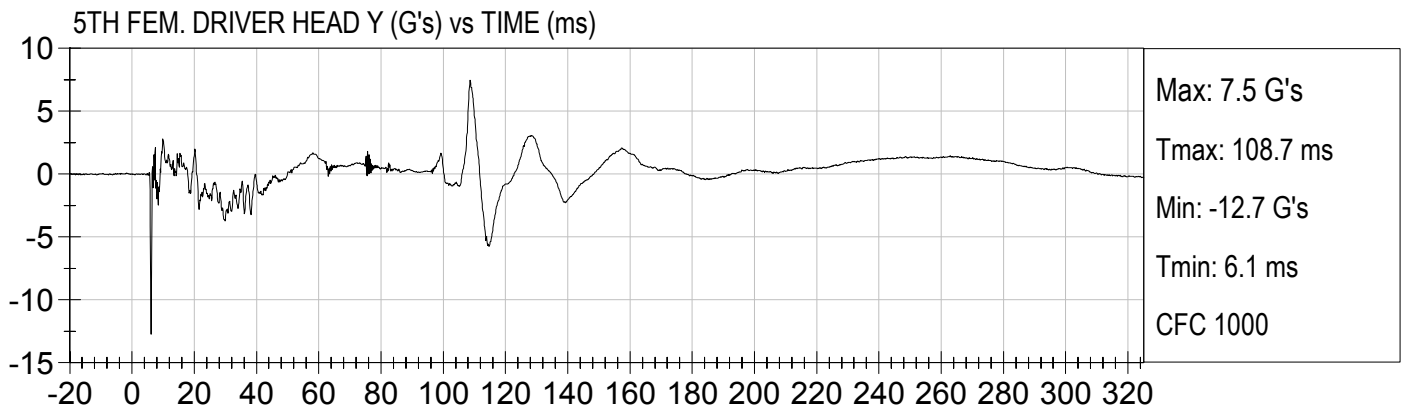
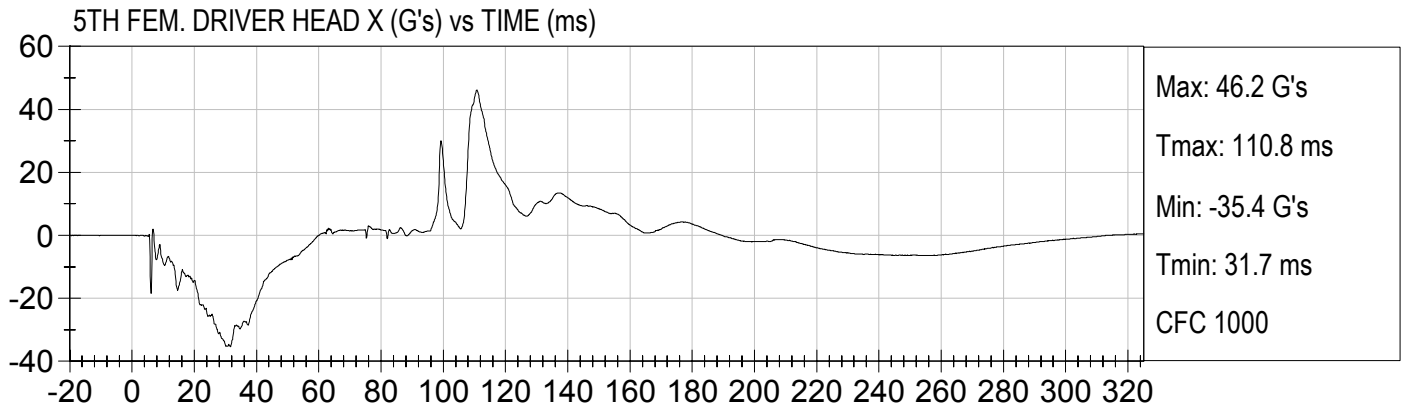


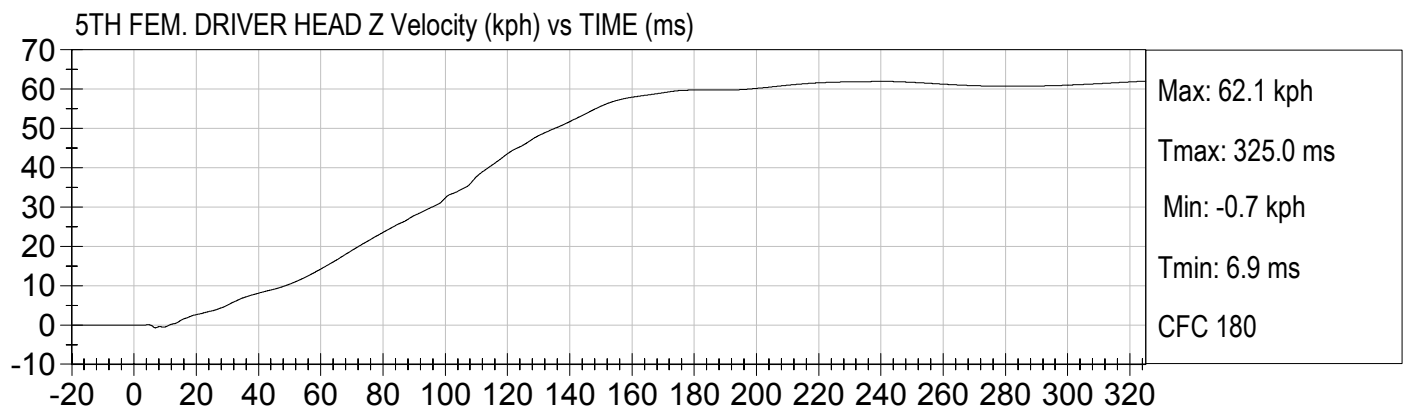
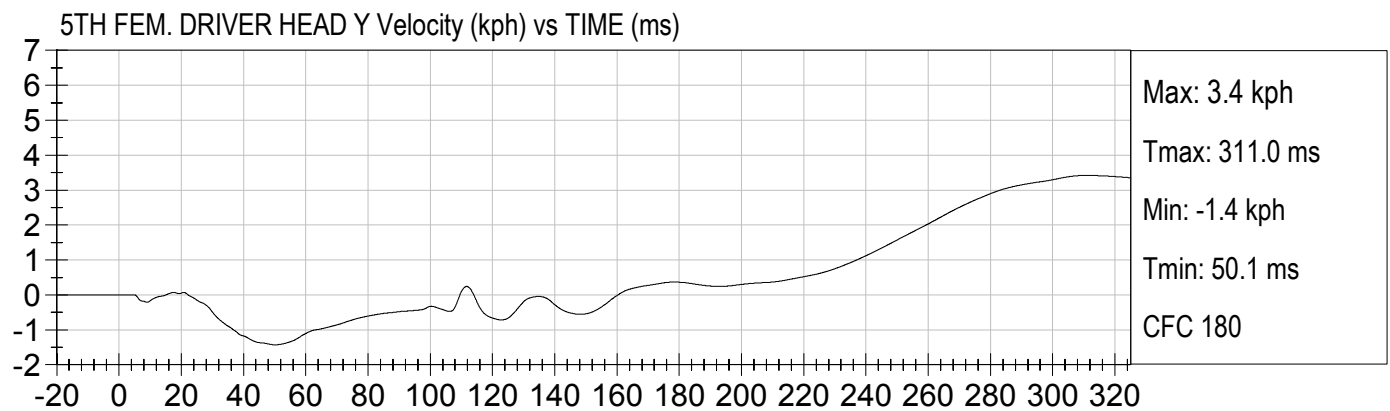
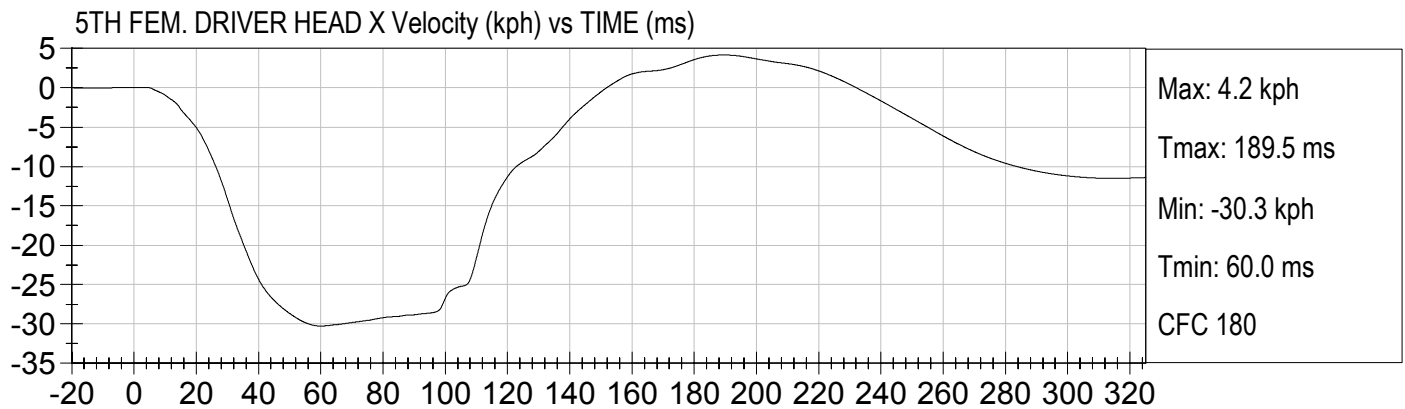
Drv. nij (NCF) () vs TIME SPECIAL CHS (ms)



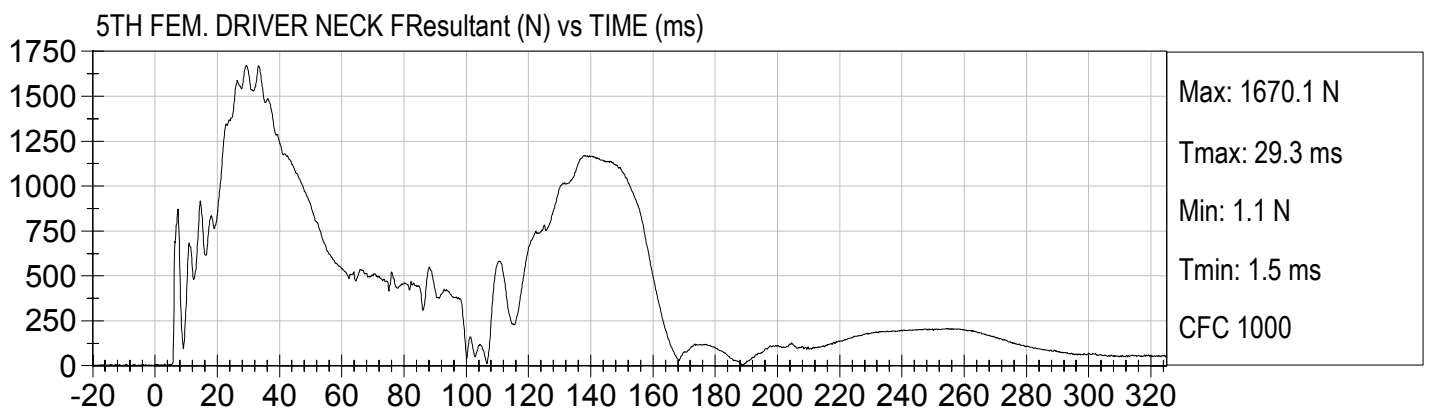
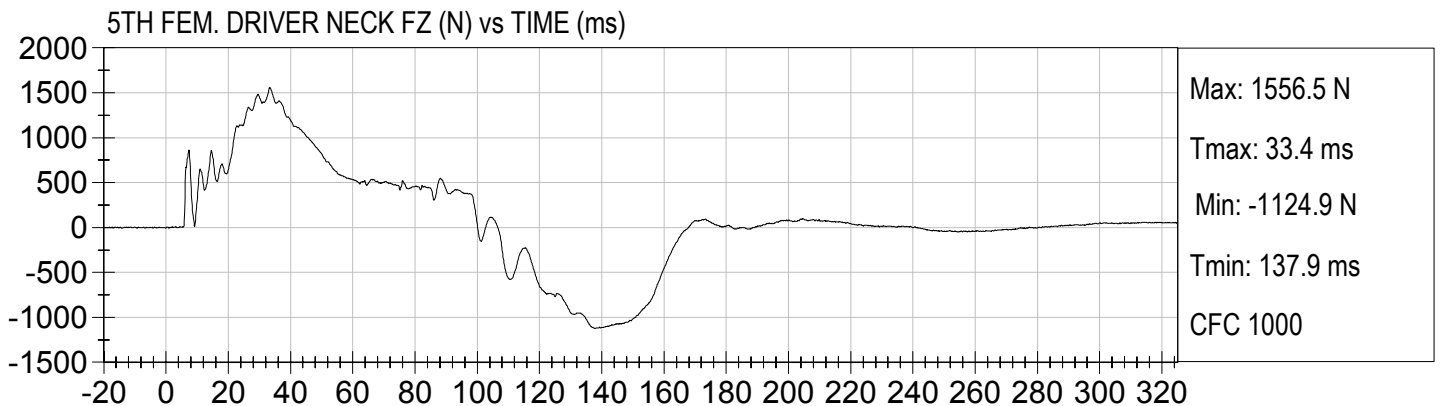
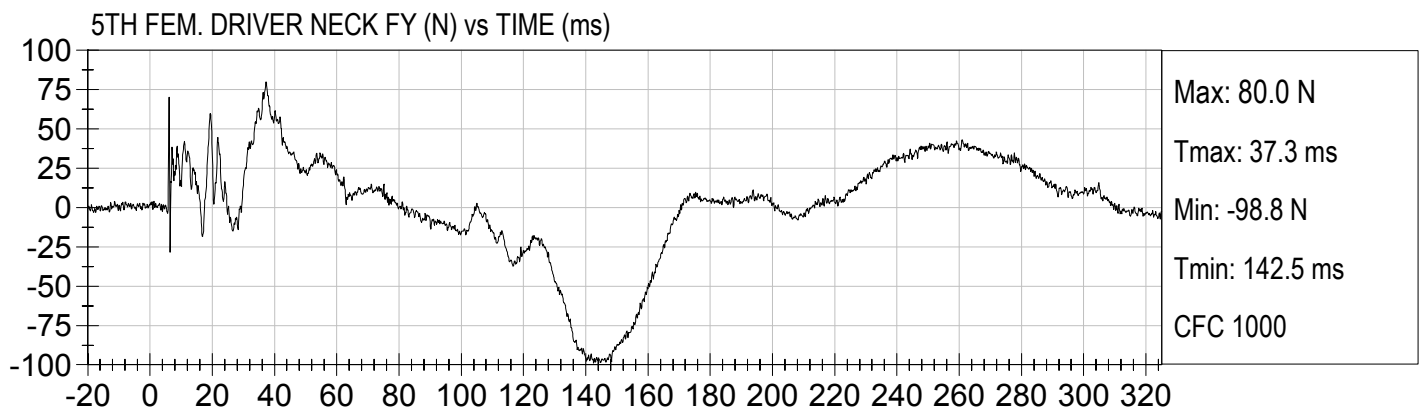
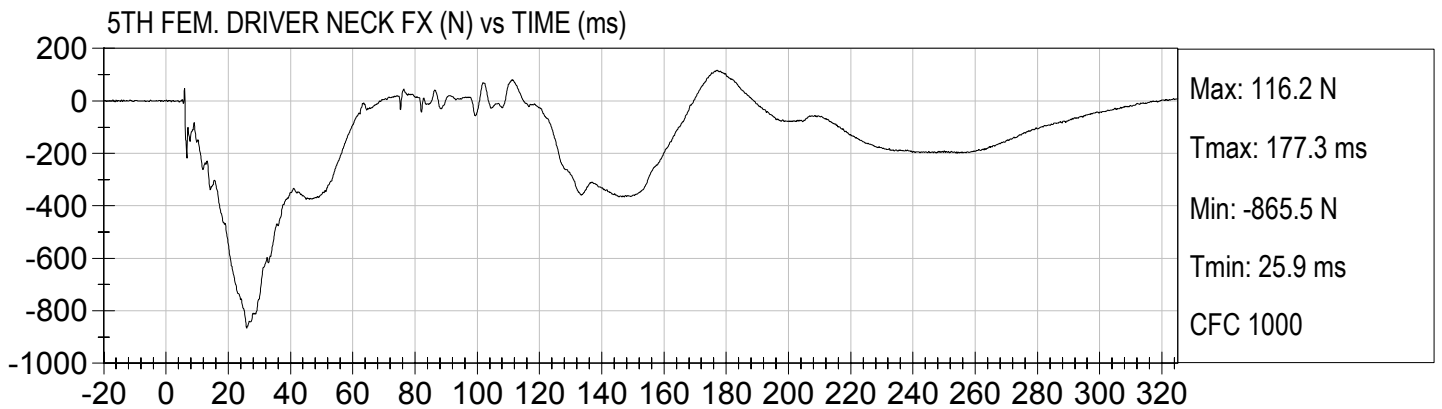
Drv. nij (NCE) () vs TIME SPECIAL CHS (ms)

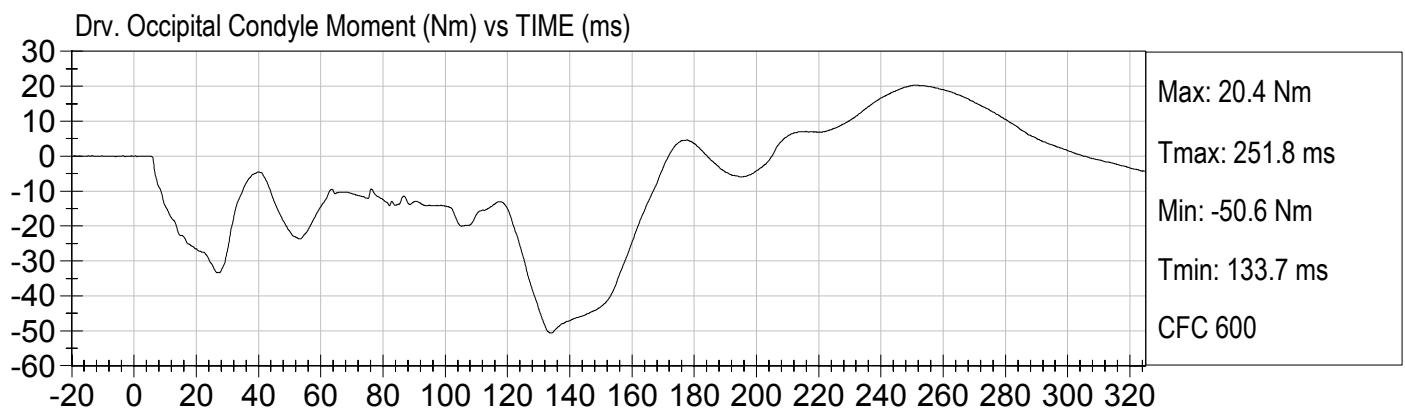
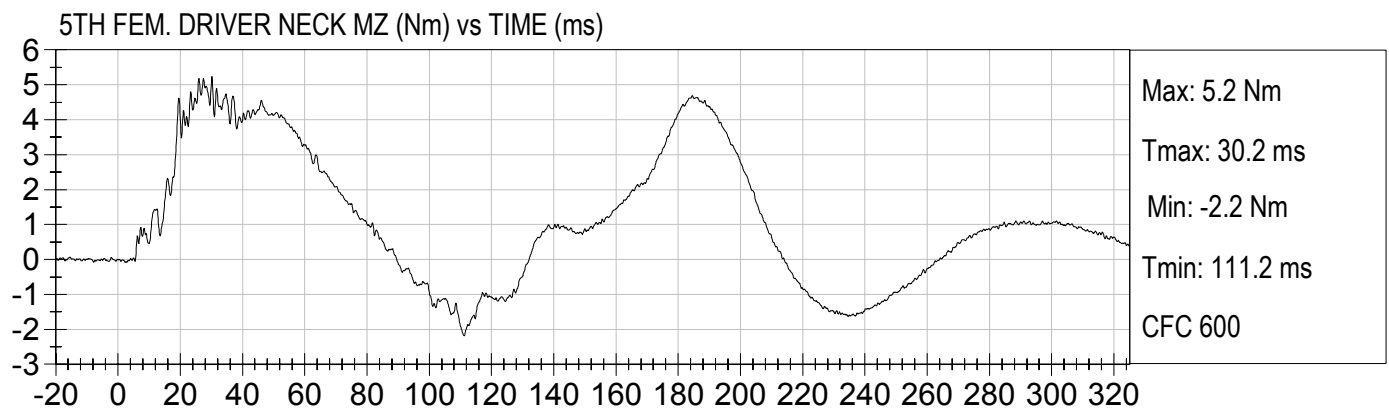
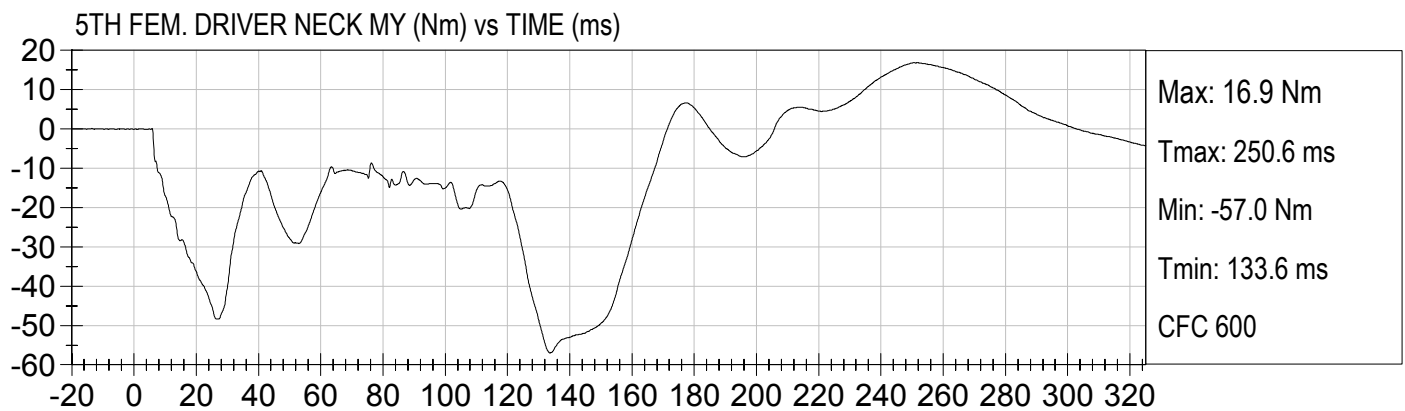
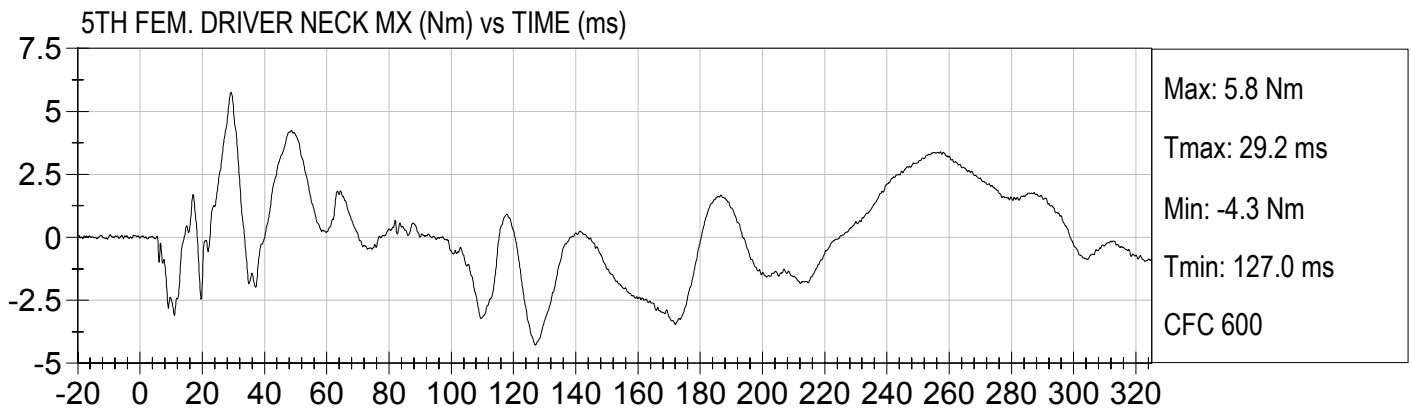


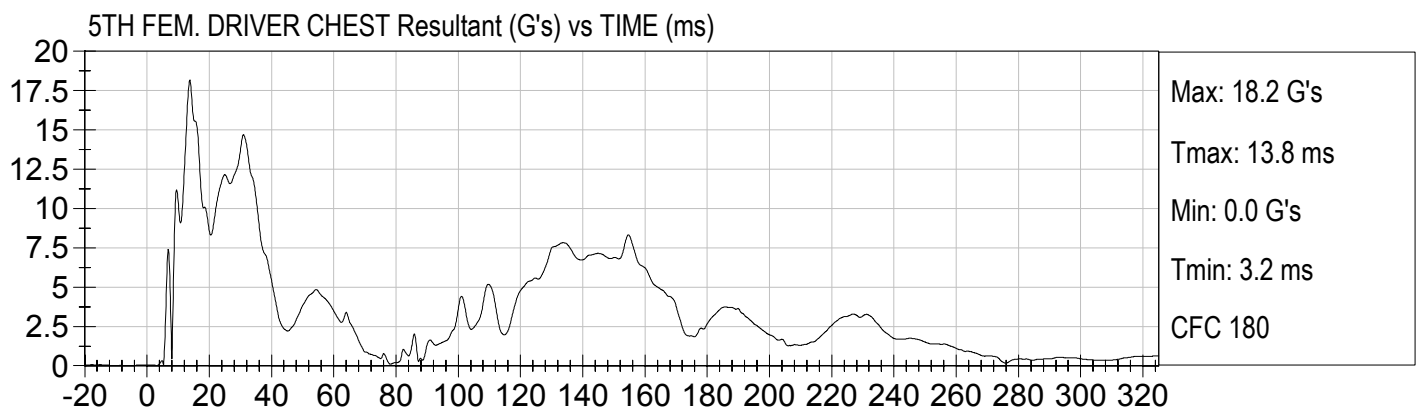
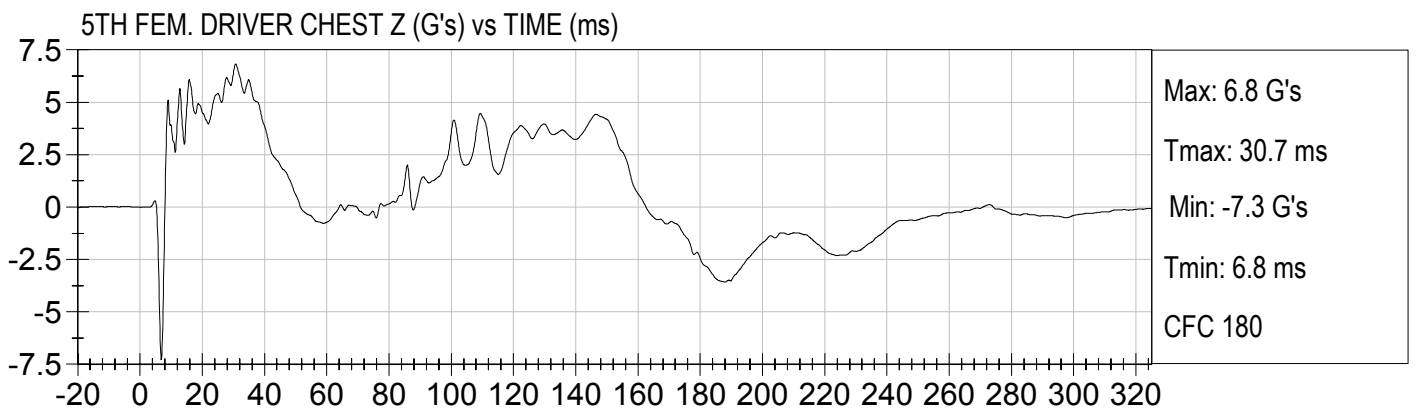
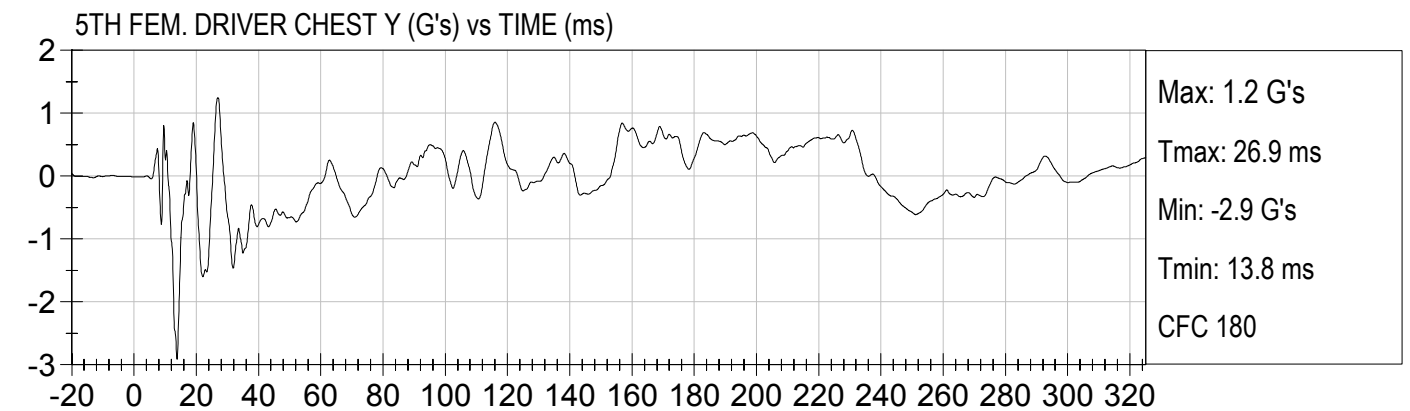
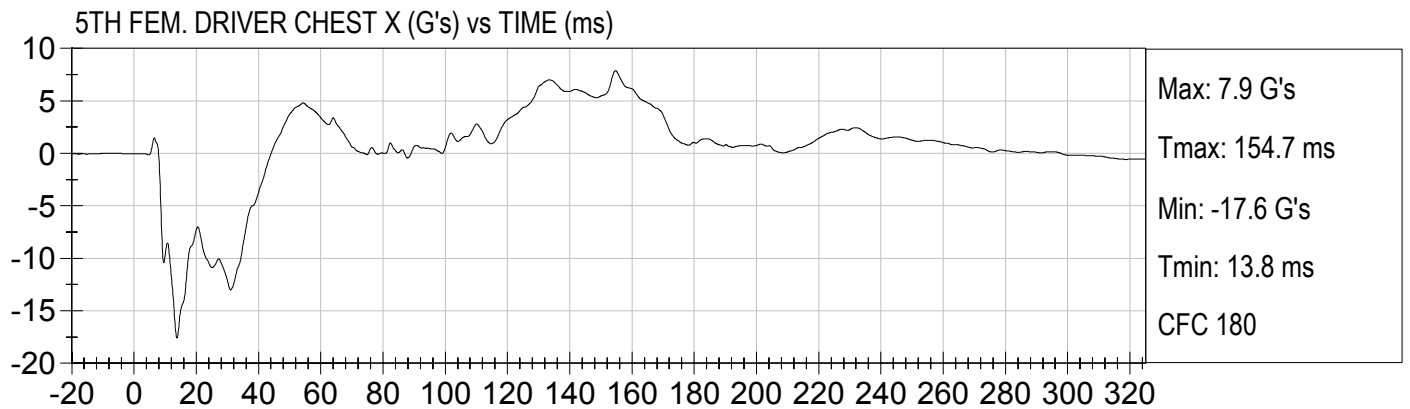






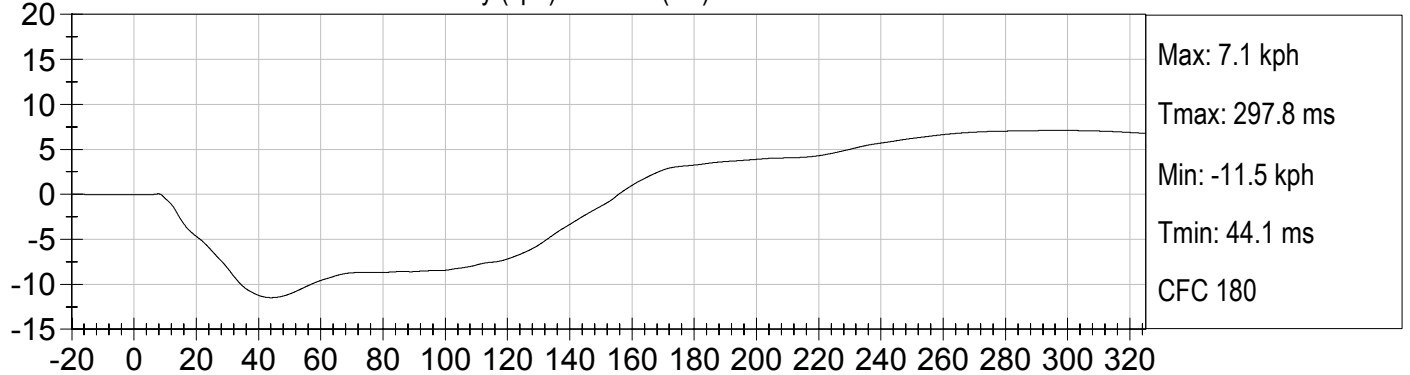




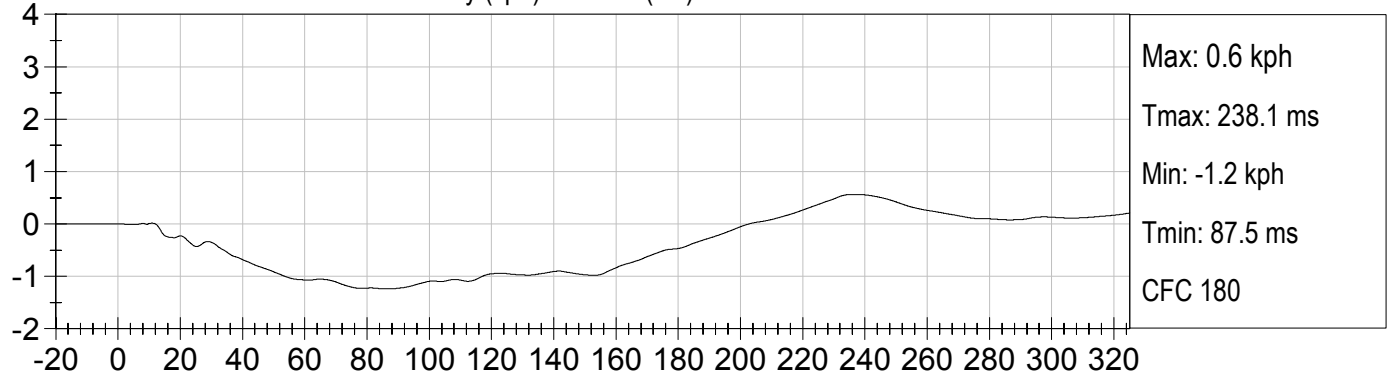




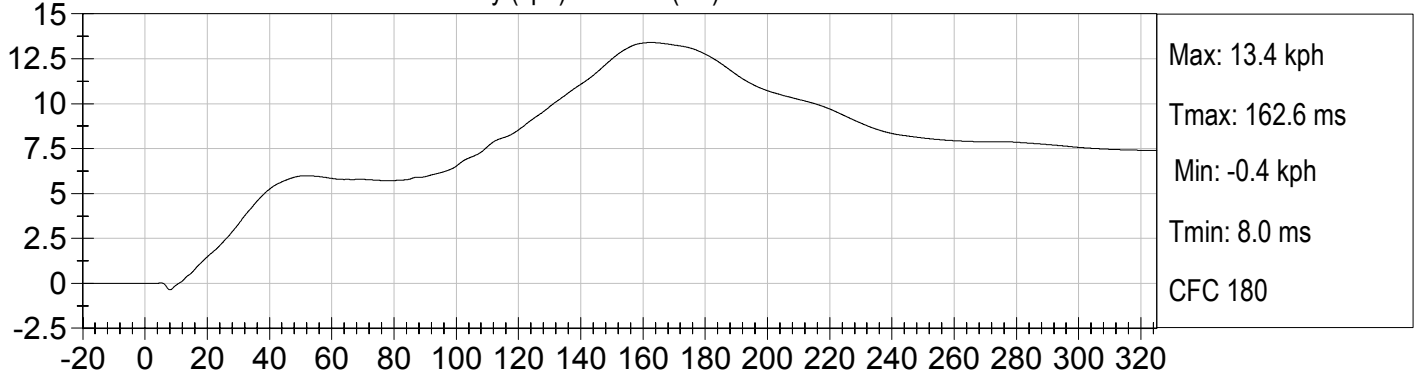
5TH FEM. DRIVER CHEST X Velocity (kph) vs TIME (ms)



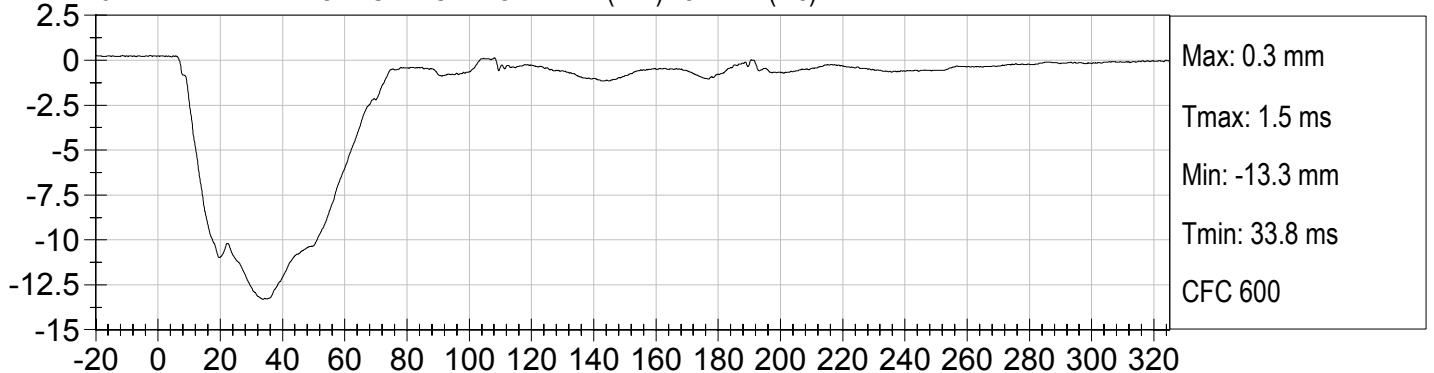
5TH FEM. DRIVER CHEST Y Velocity (kph) vs TIME (ms)

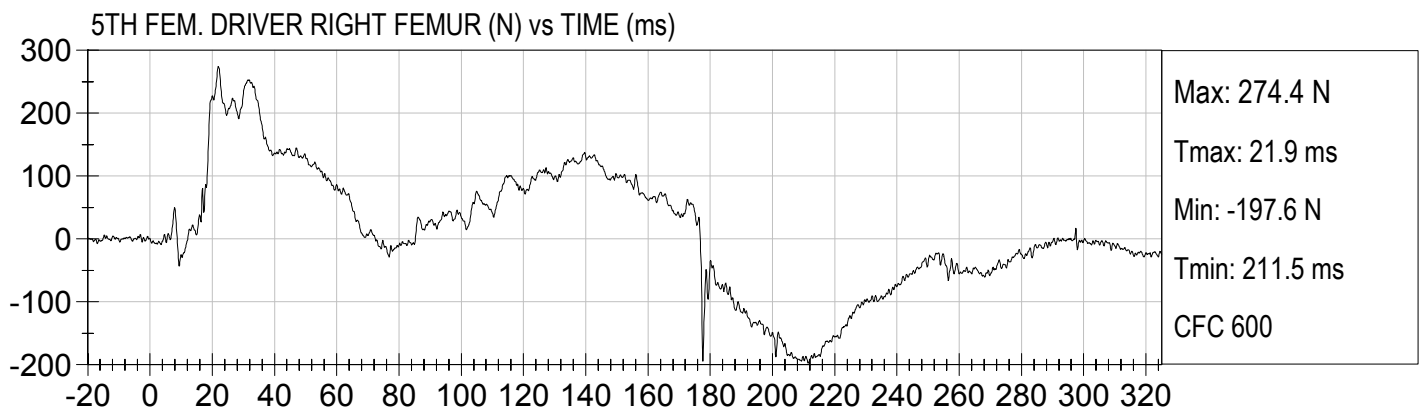
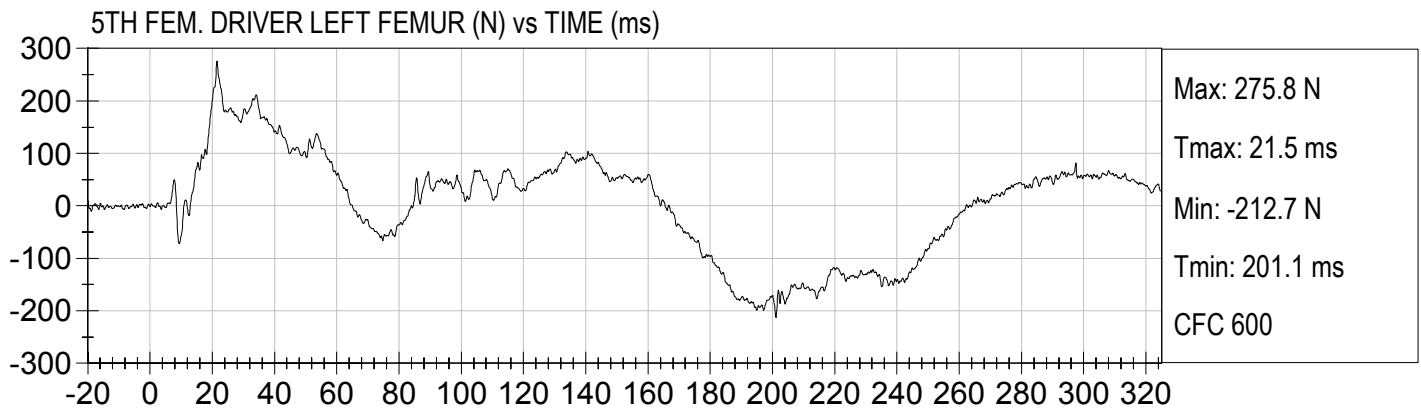


5TH FEM. DRIVER CHEST Z Velocity (kph) vs TIME (ms)



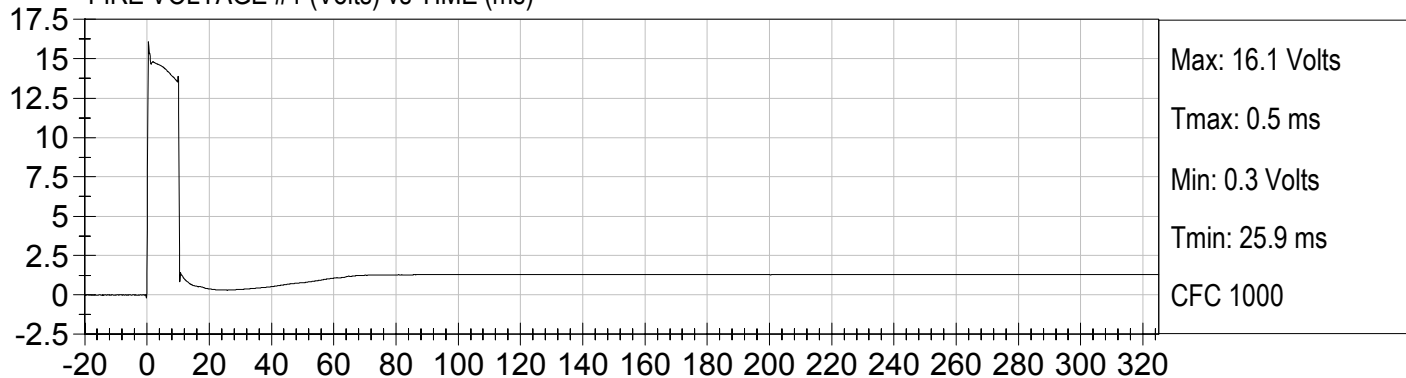
5TH FEM. DRIVER CHEST DISPLACEMENT (mm) vs TIME (ms)



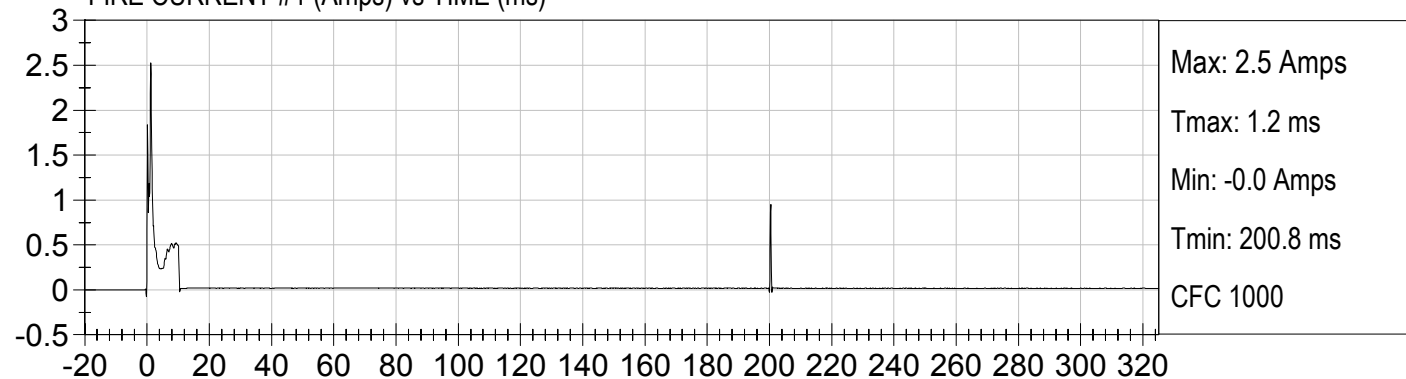




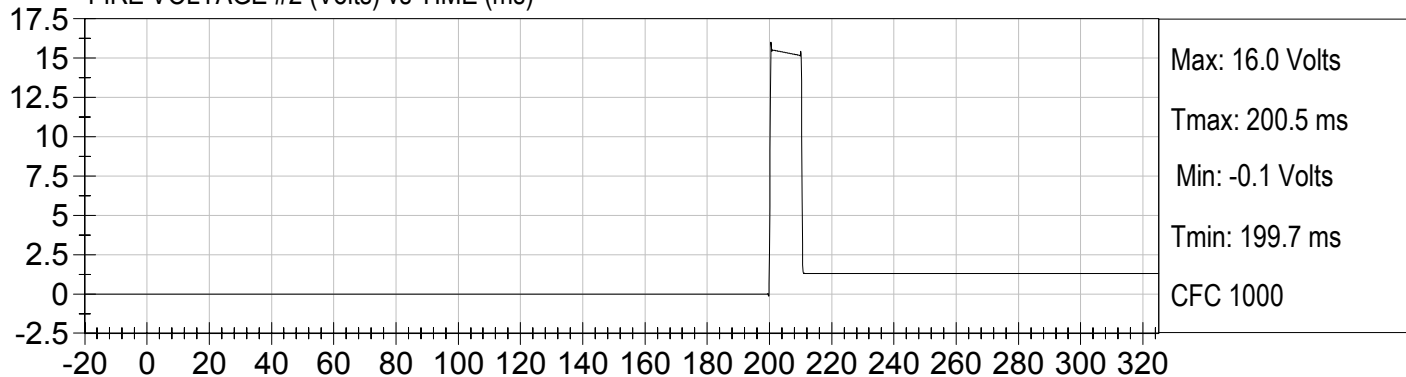
FIRE VOLTAGE #1 (Volts) vs TIME (ms)



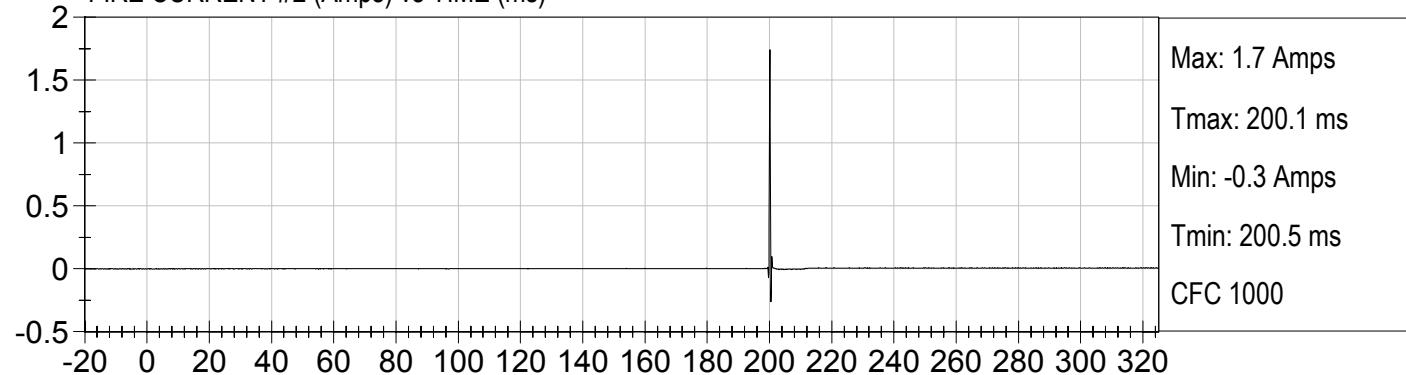
FIRE CURRENT #1 (Amps) vs TIME (ms)

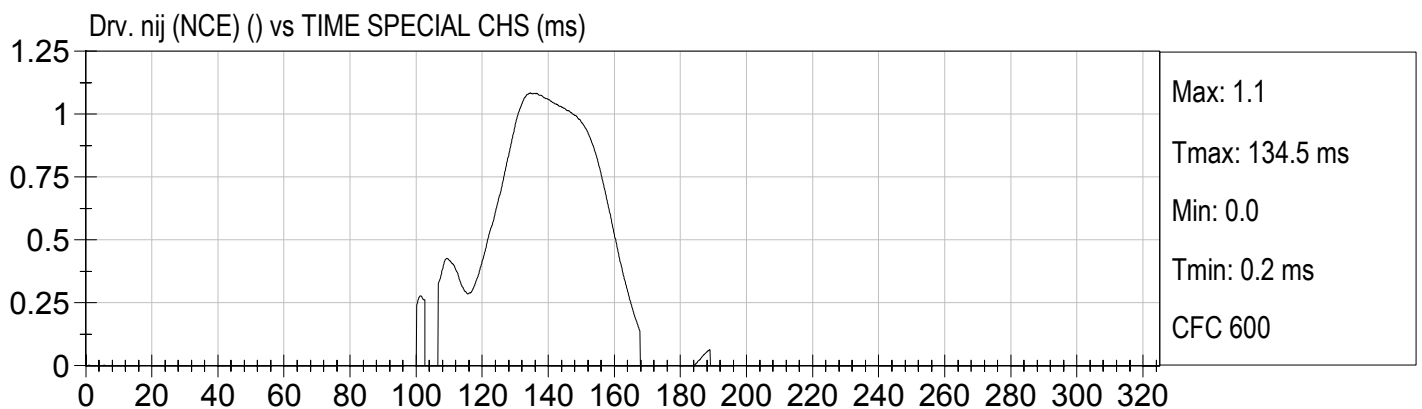
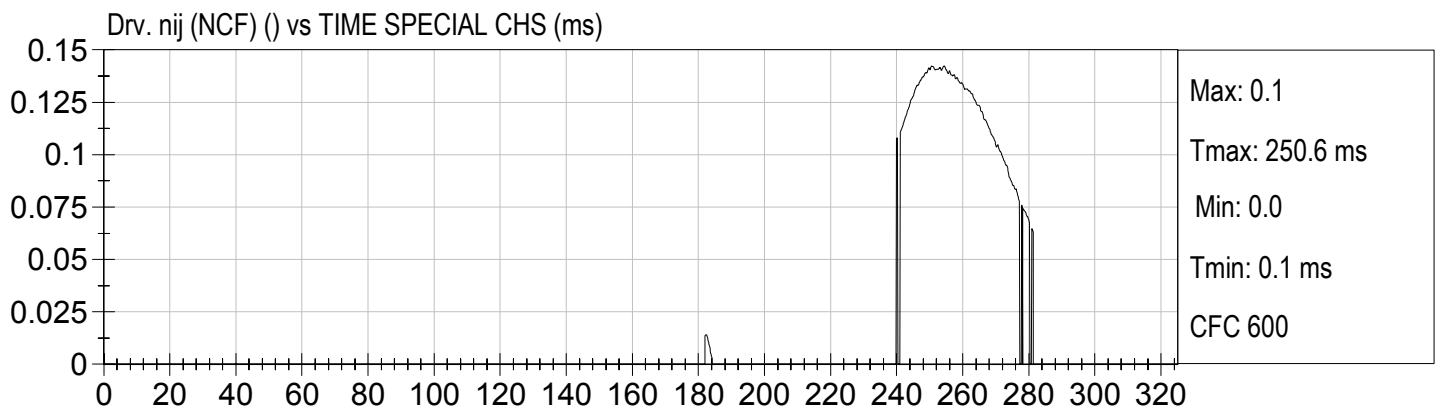
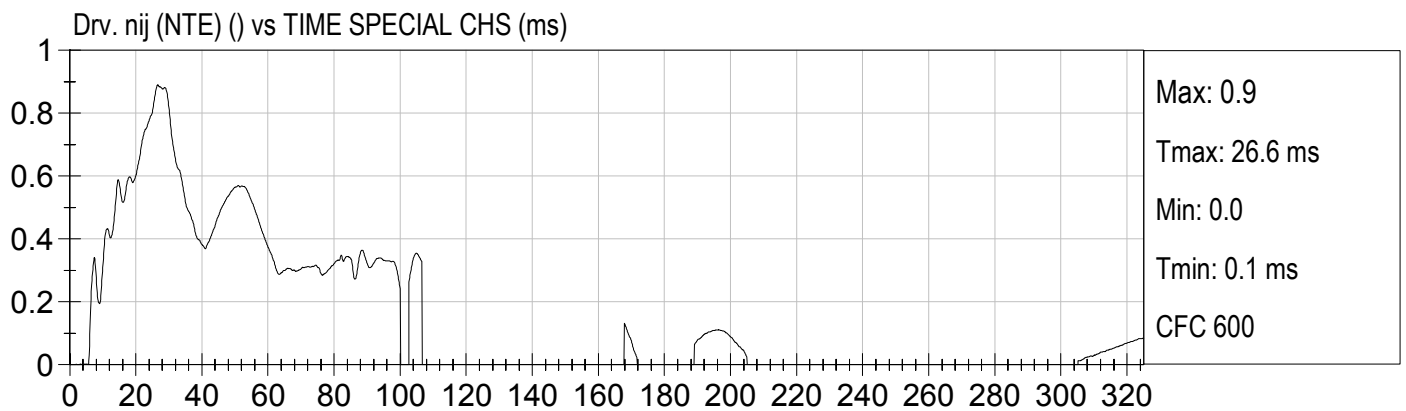
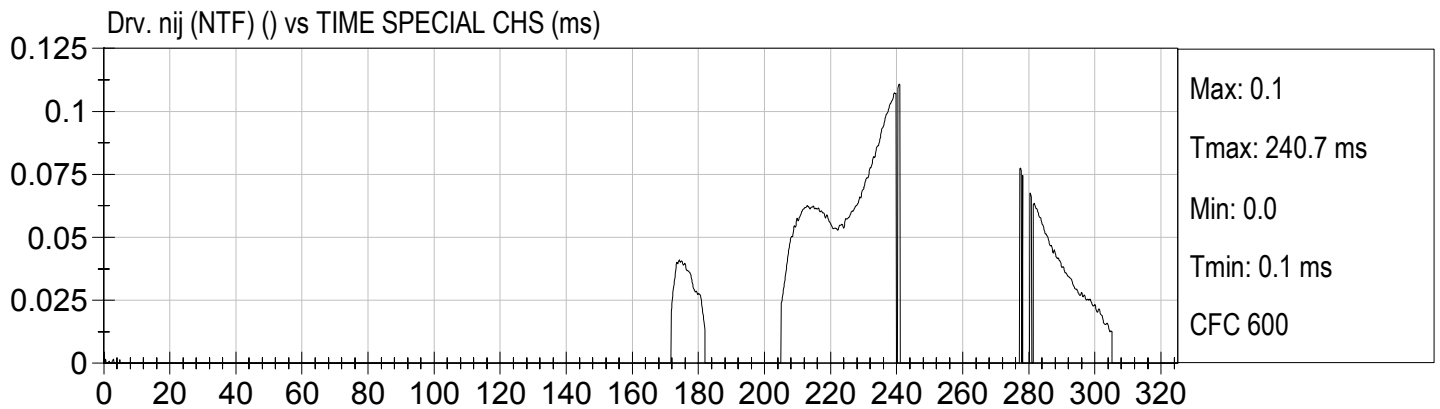


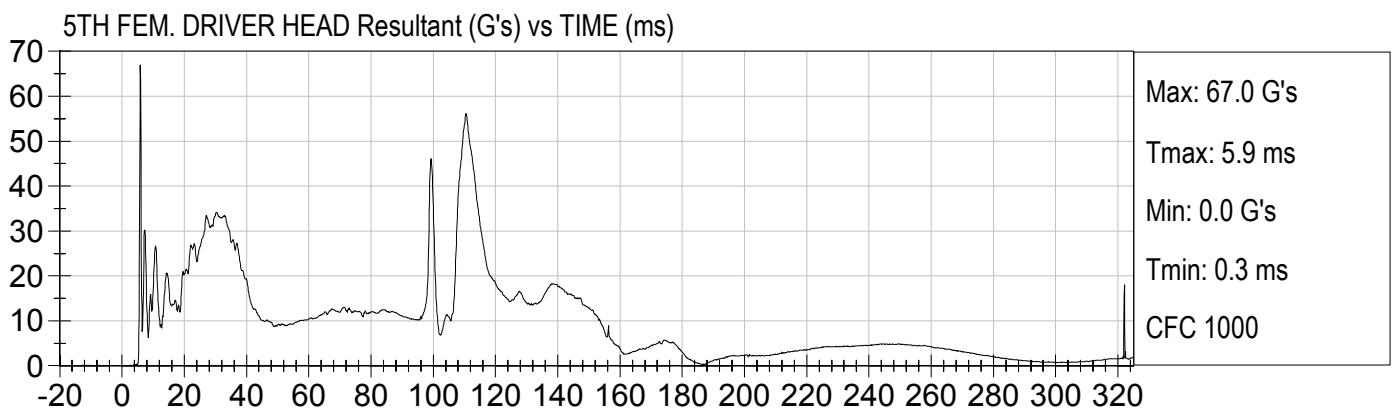
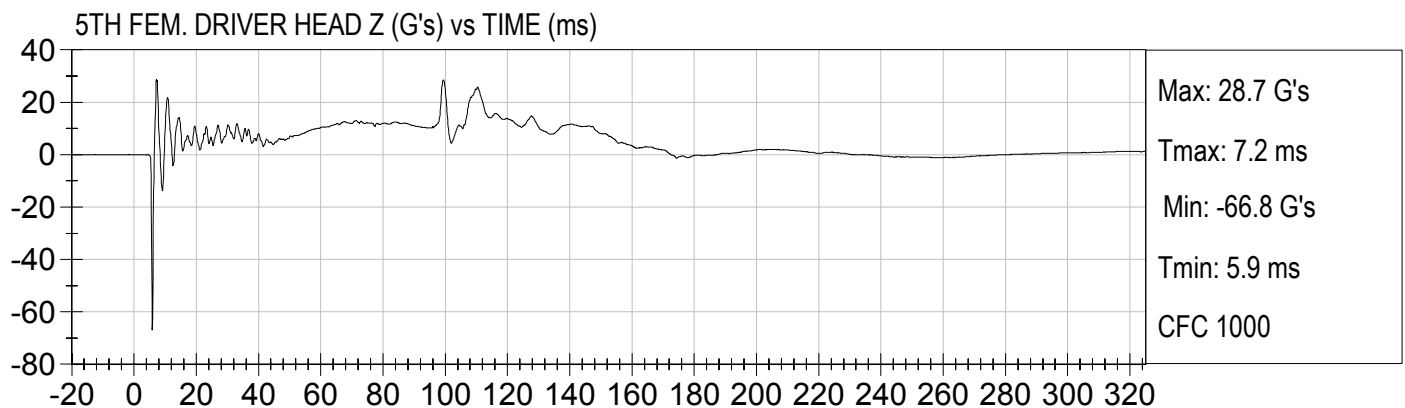
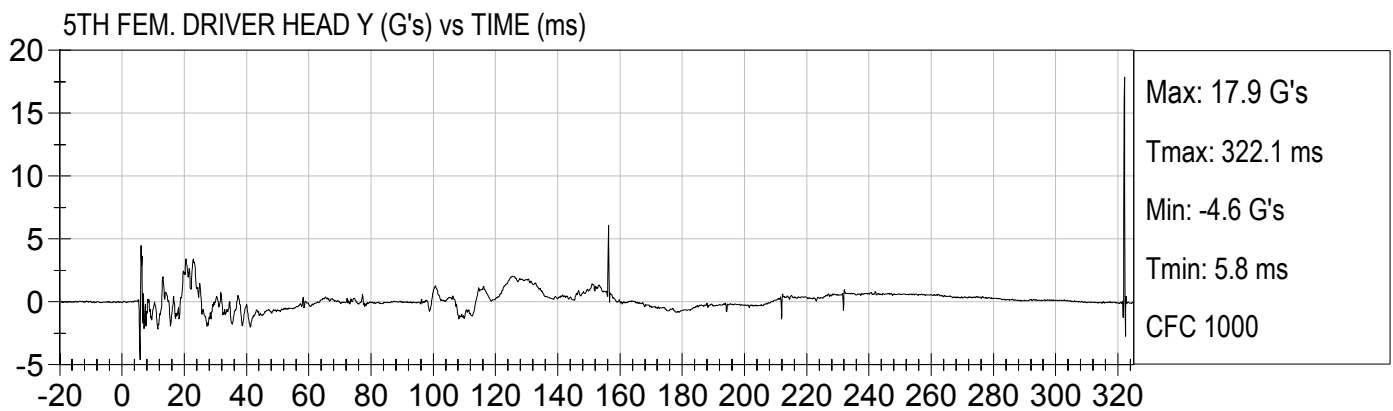
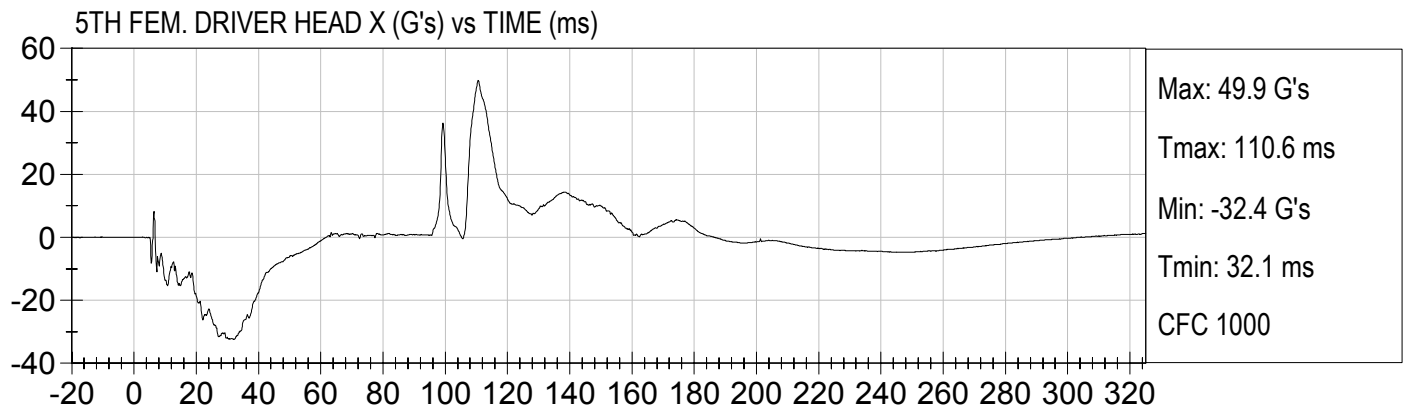
FIRE VOLTAGE #2 (Volts) vs TIME (ms)



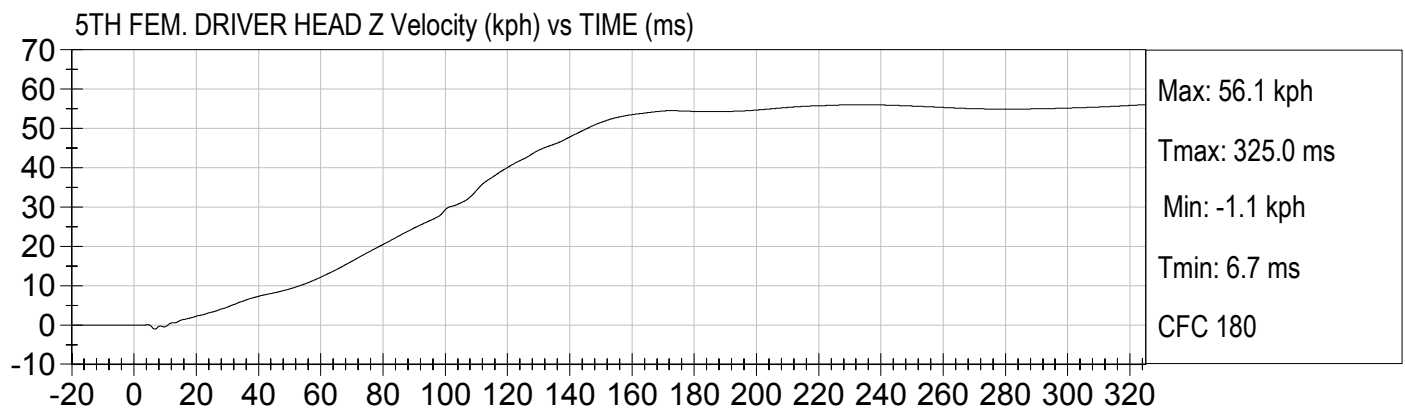
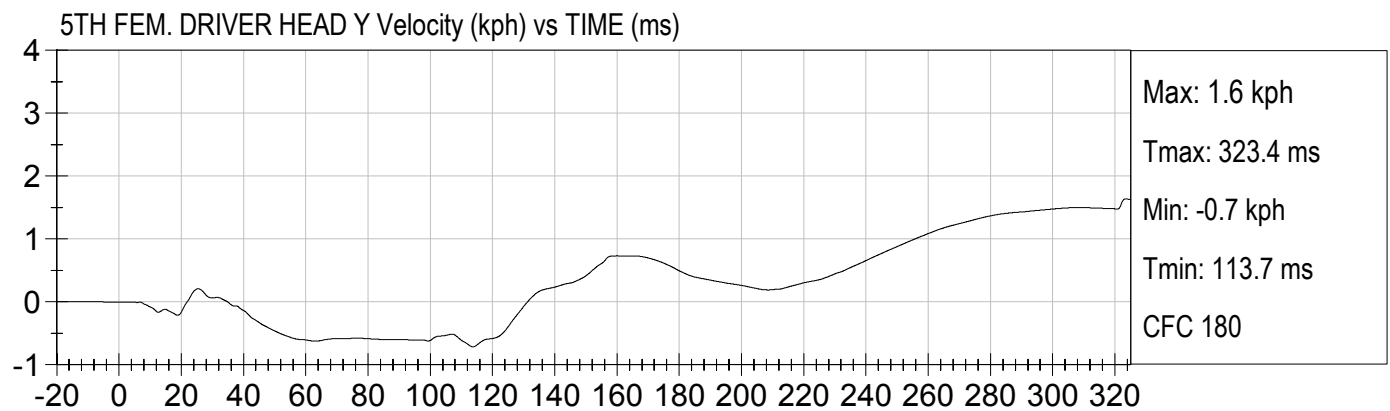
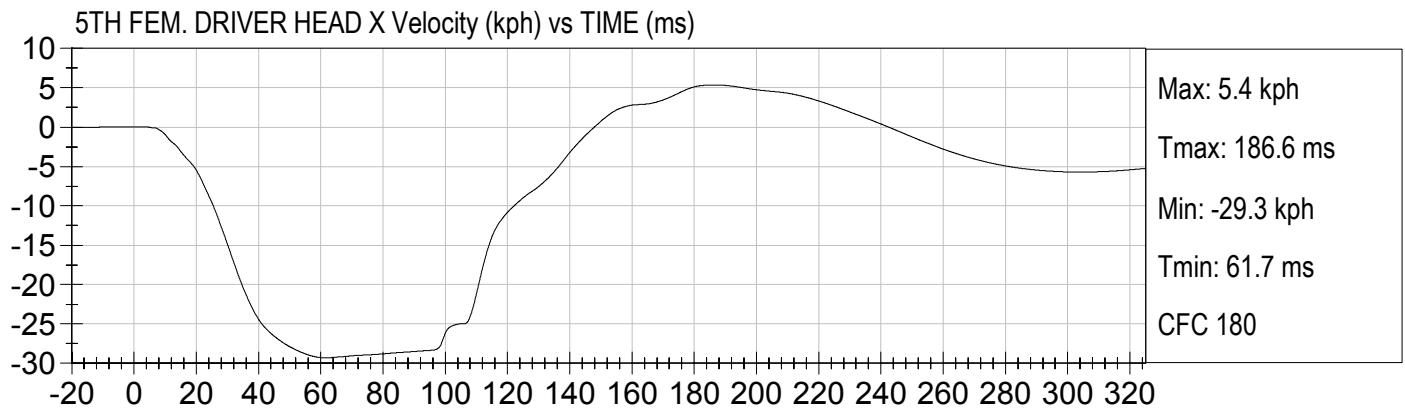
FIRE CURRENT #2 (Amps) vs TIME (ms)

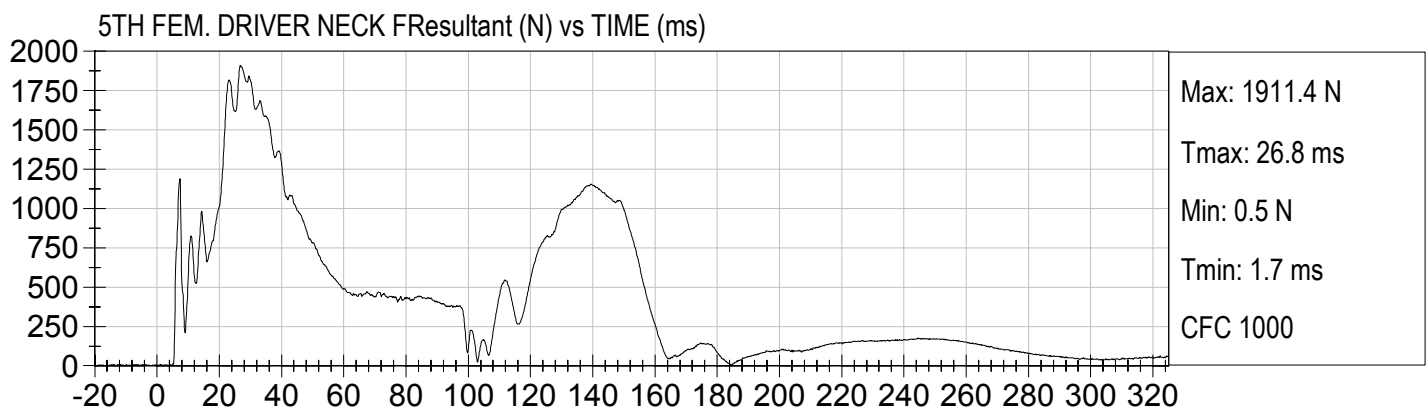
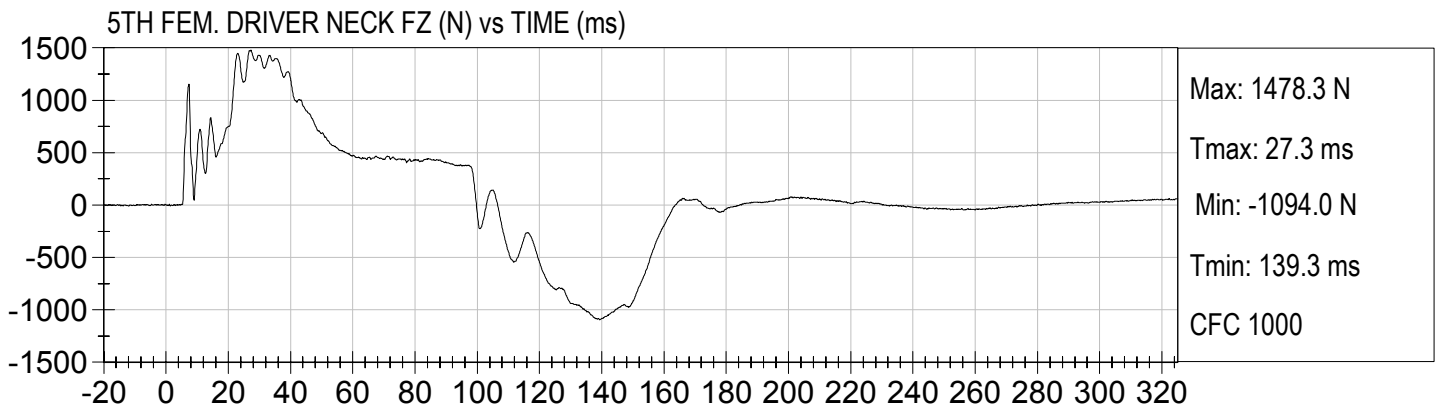
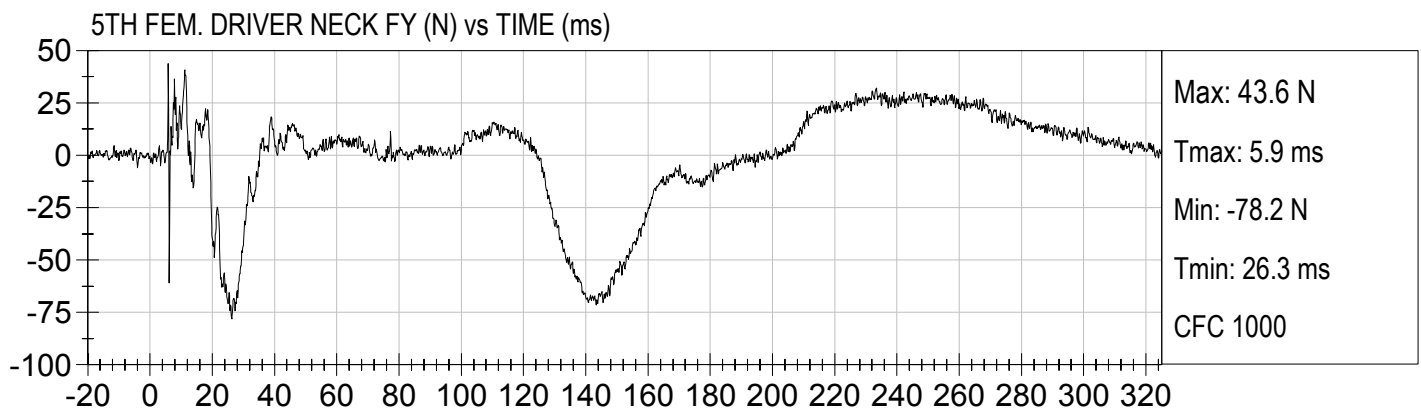
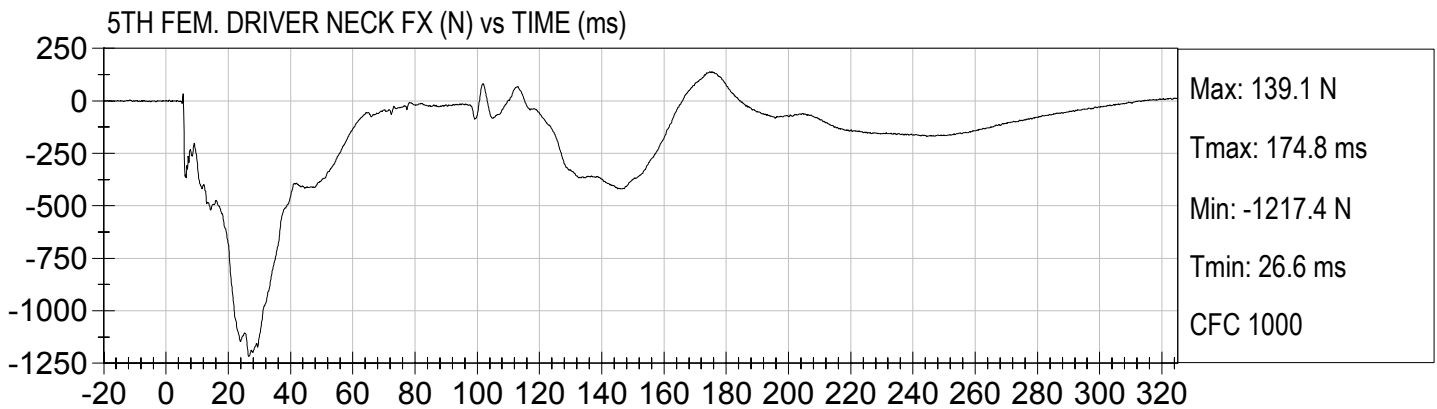


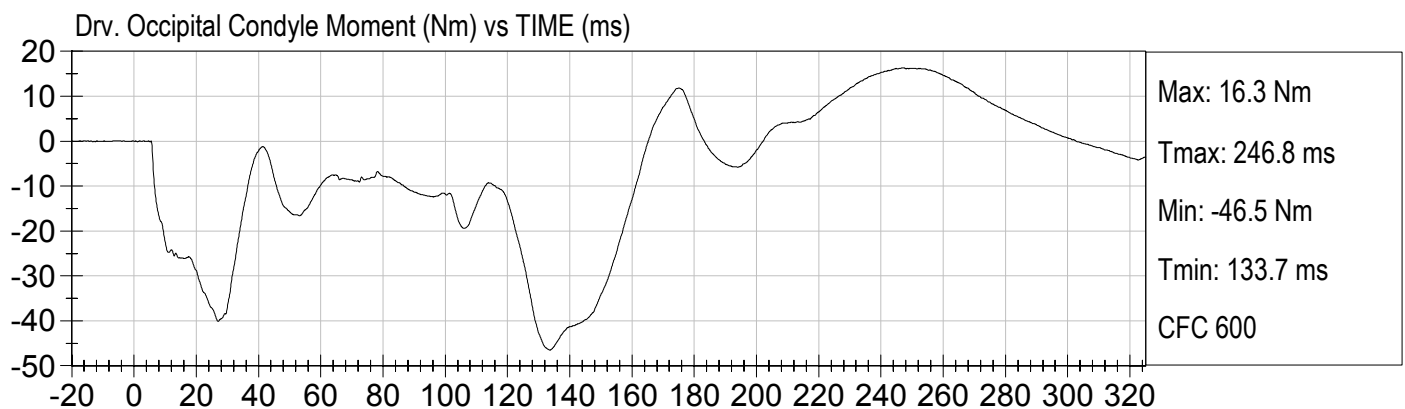
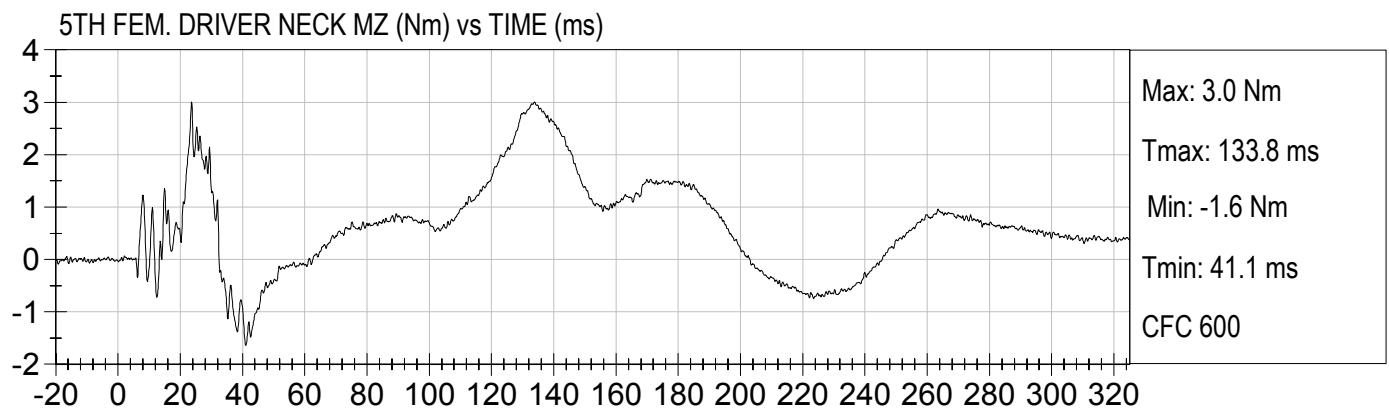
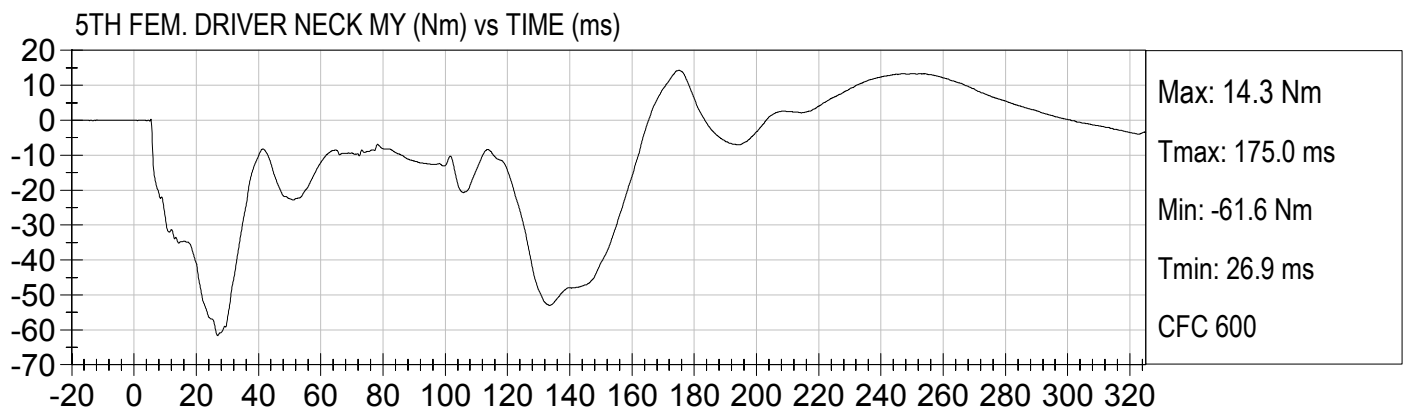
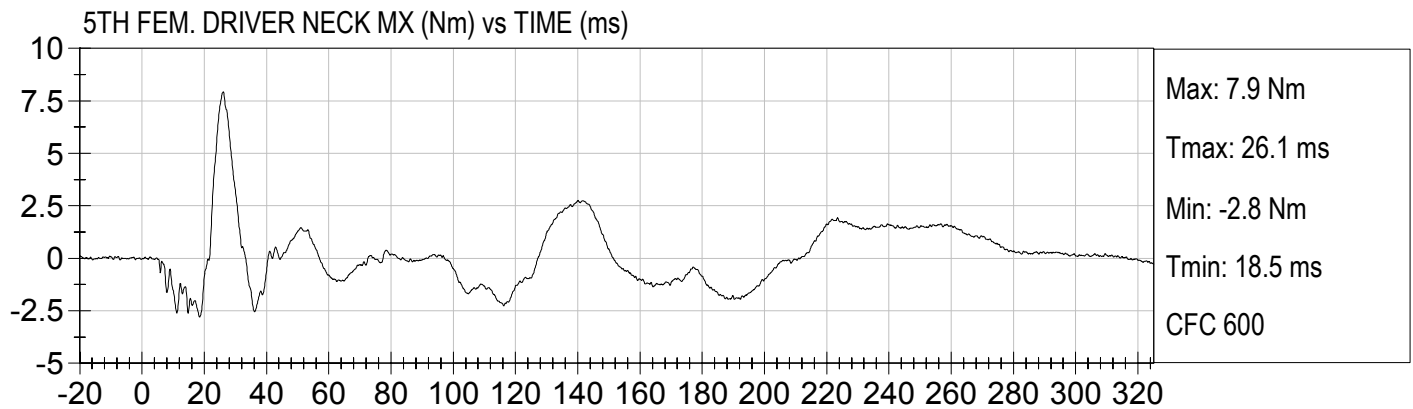


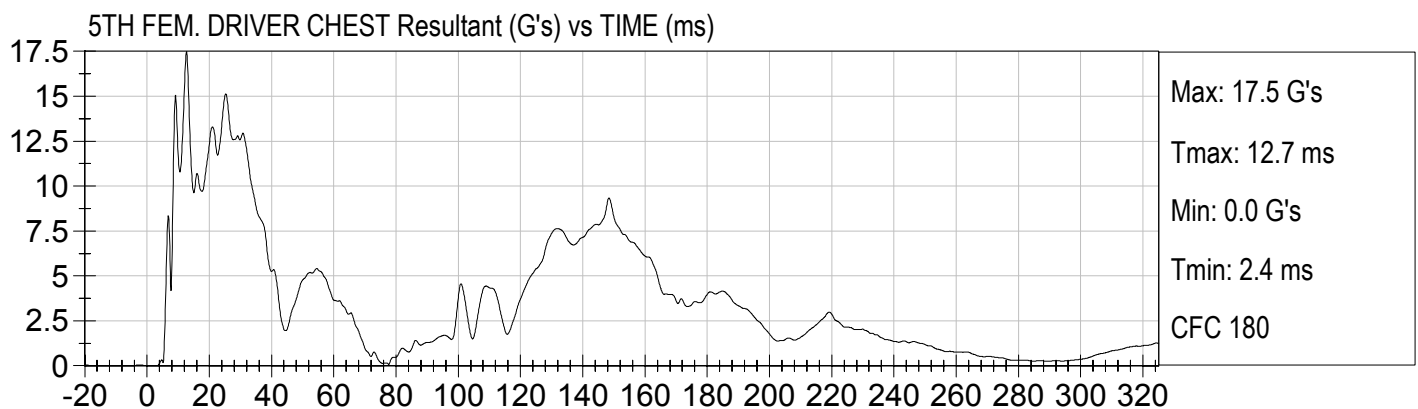
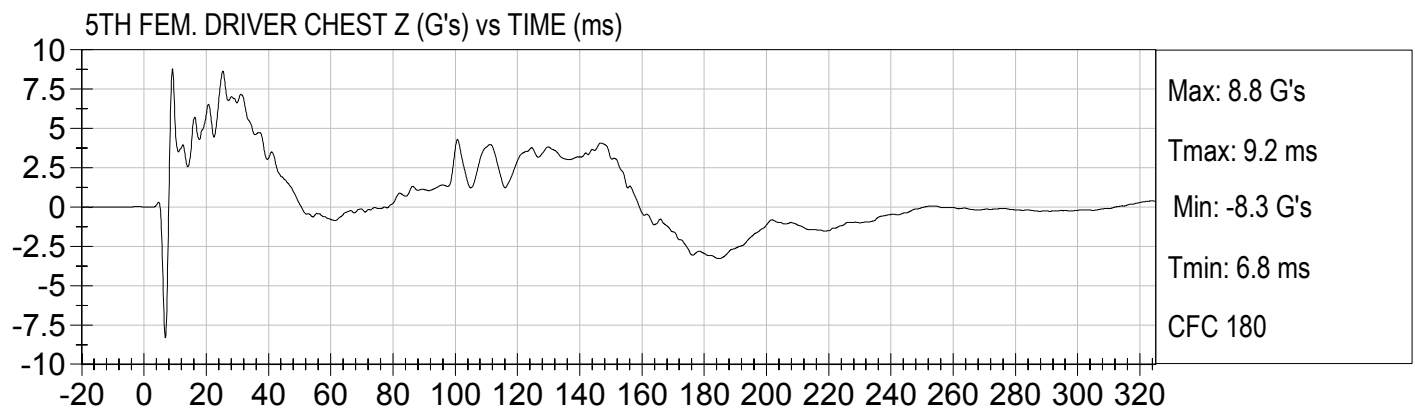
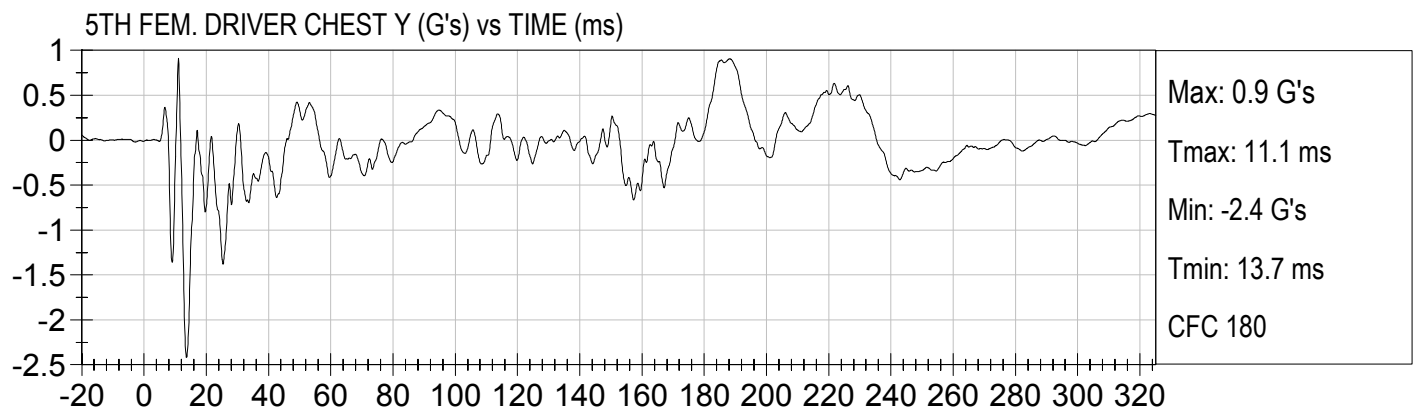
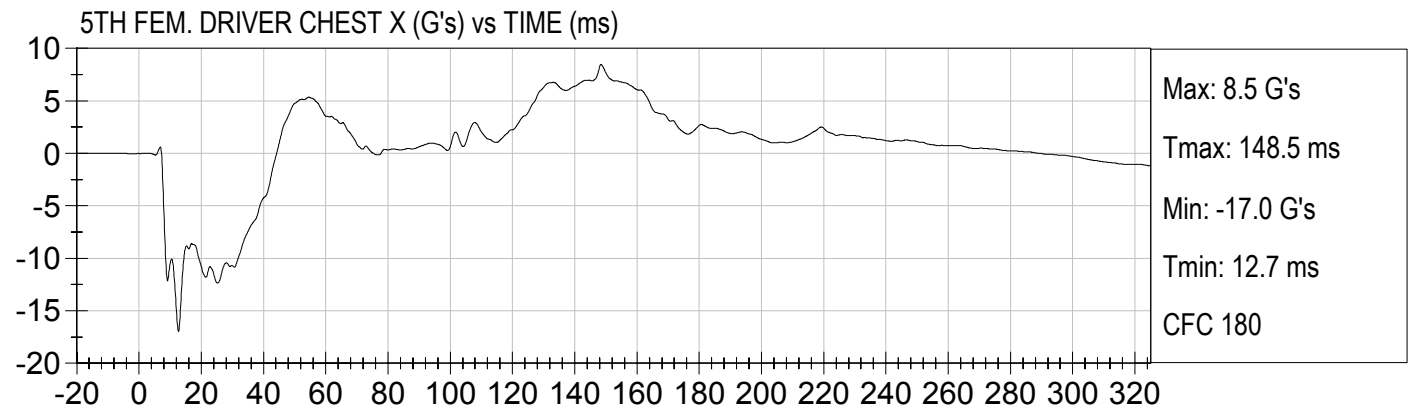






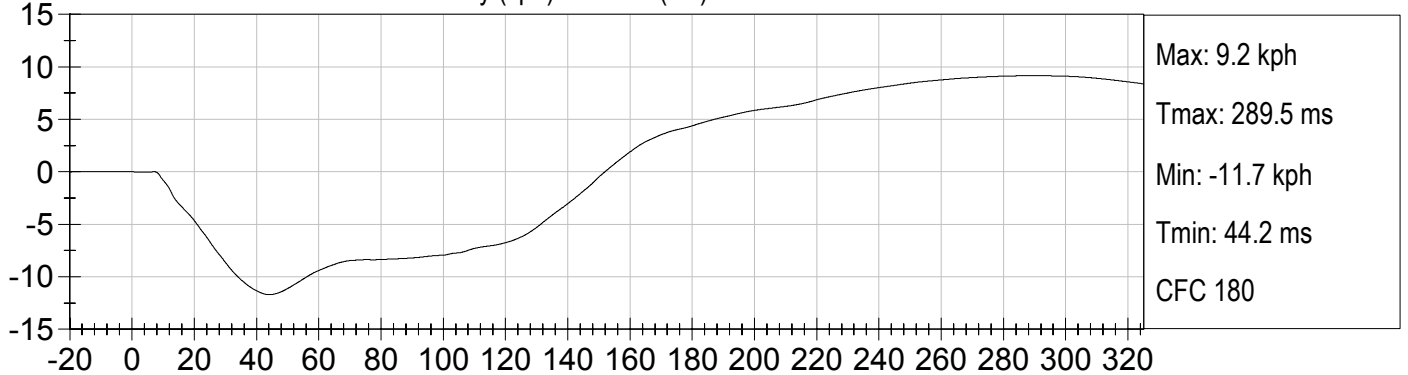




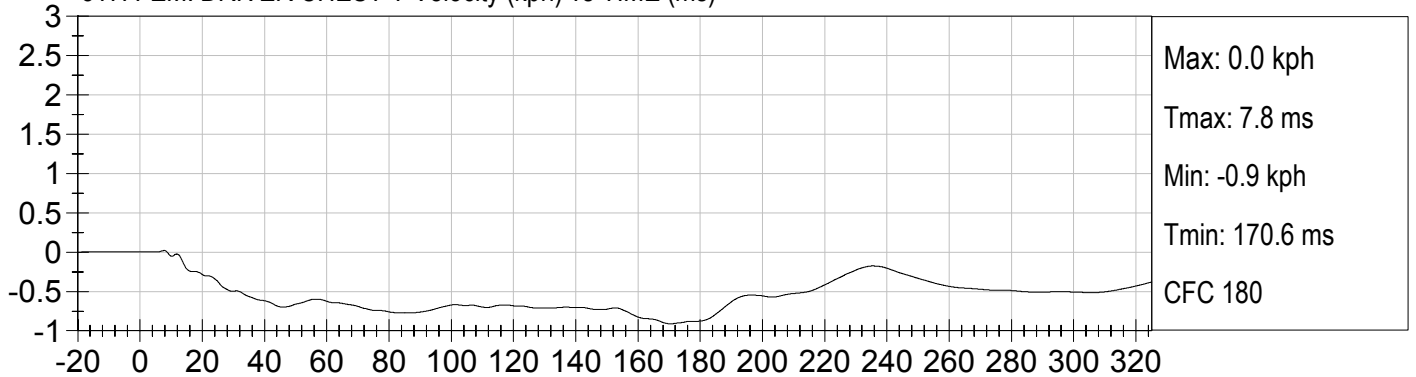




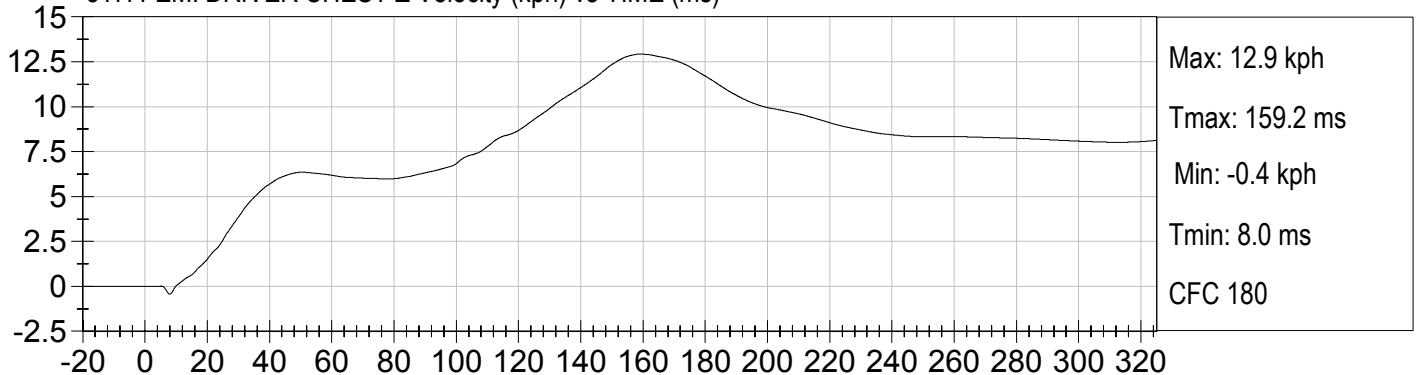
5TH FEM. DRIVER CHEST X Velocity (kph) vs TIME (ms)



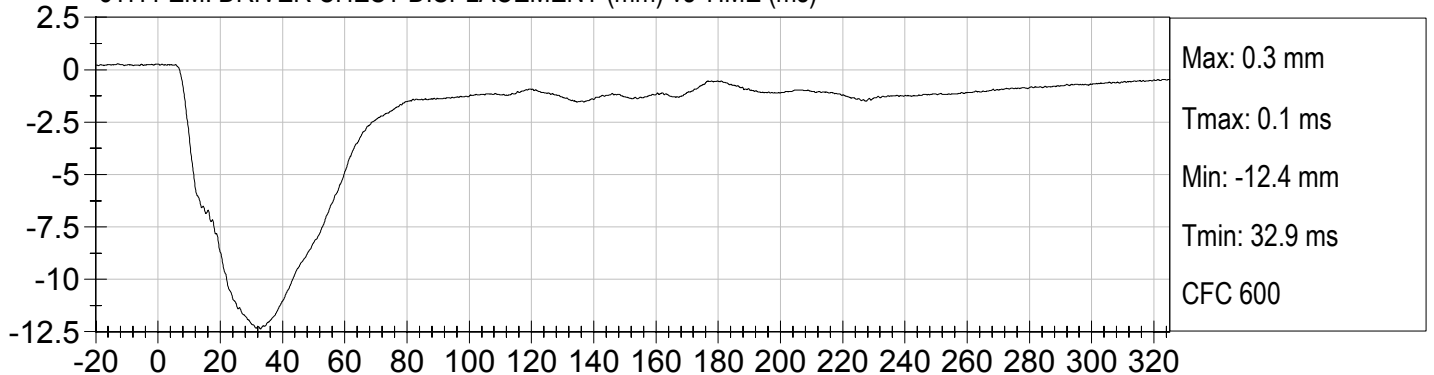
5TH FEM. DRIVER CHEST Y Velocity (kph) vs TIME (ms)

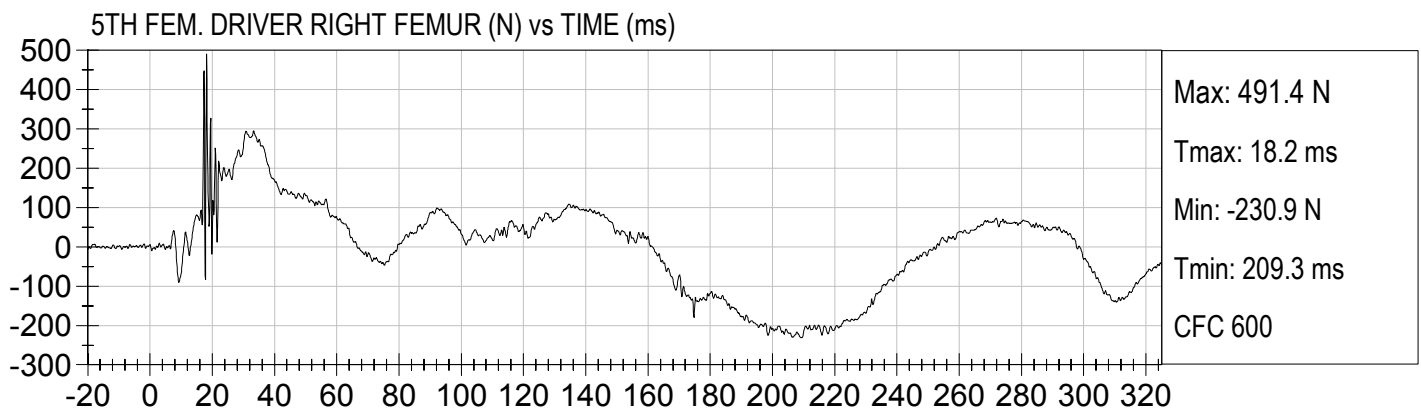
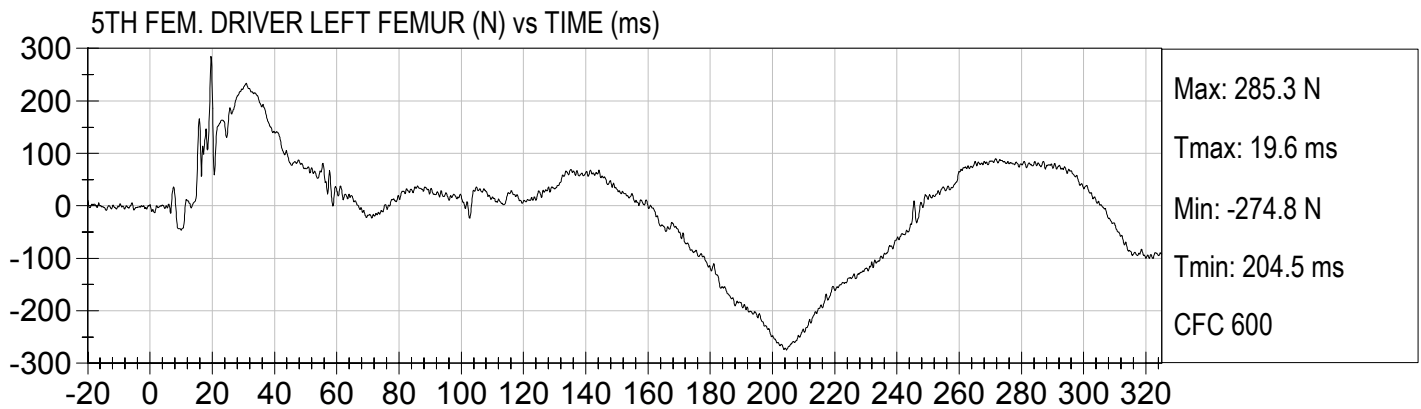


5TH FEM. DRIVER CHEST Z Velocity (kph) vs TIME (ms)



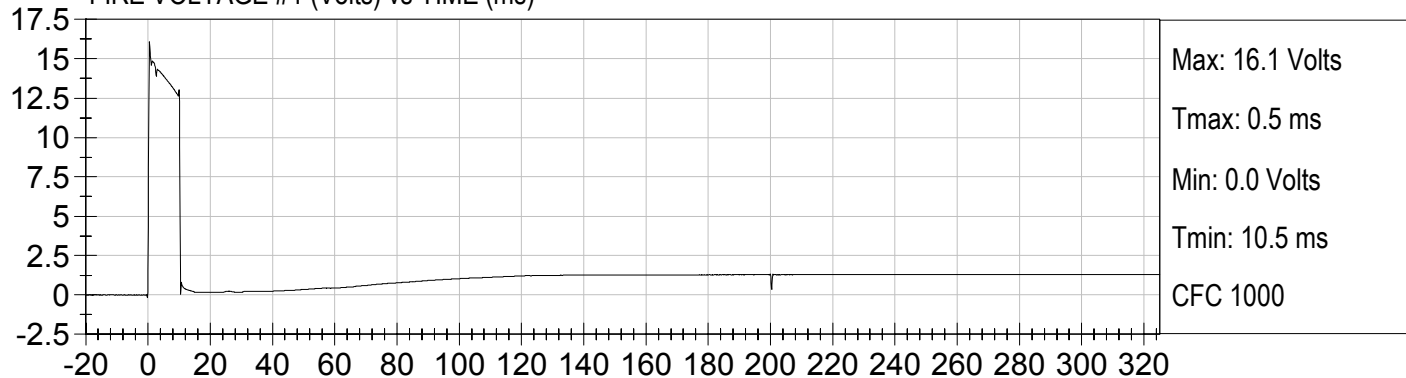
5TH FEM. DRIVER CHEST DISPLACEMENT (mm) vs TIME (ms)



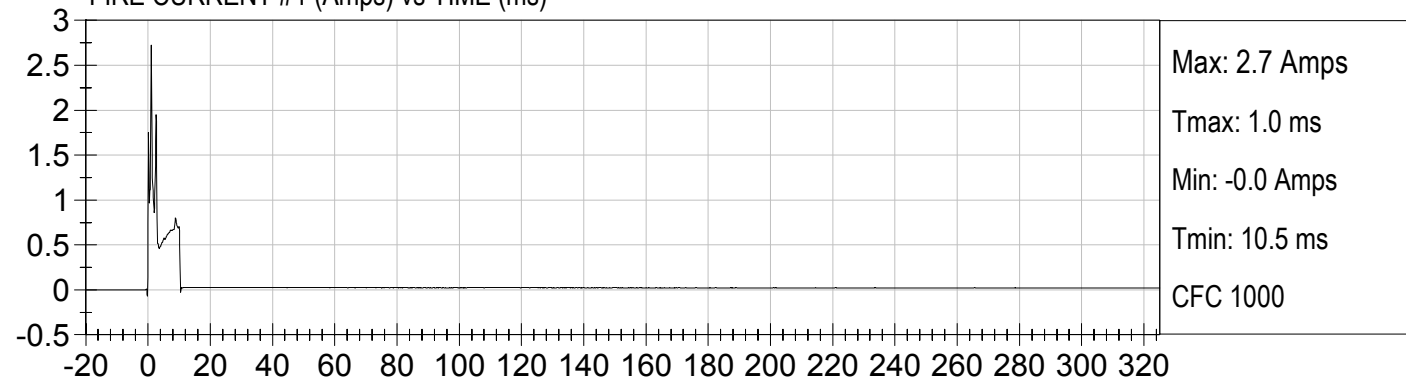




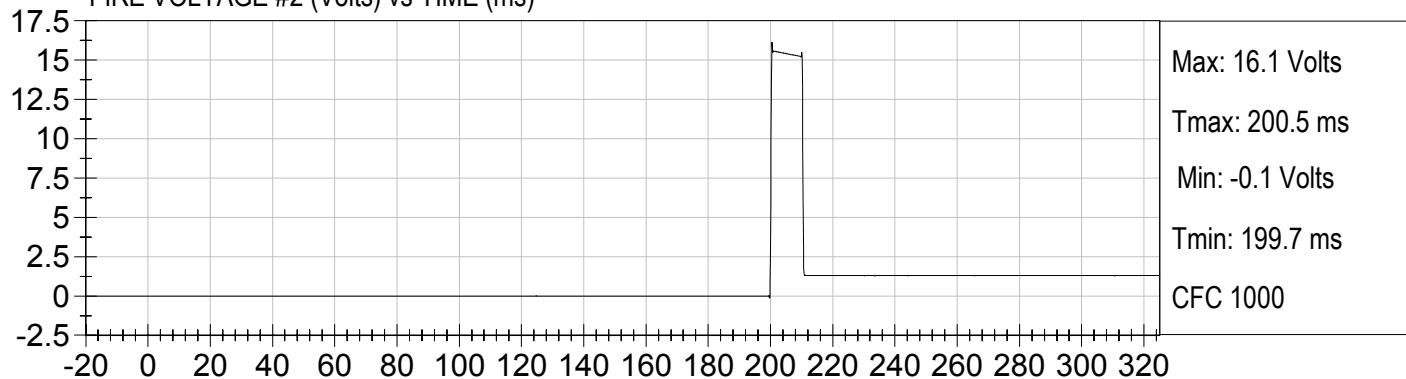
FIRE VOLTAGE #1 (Volts) vs TIME (ms)



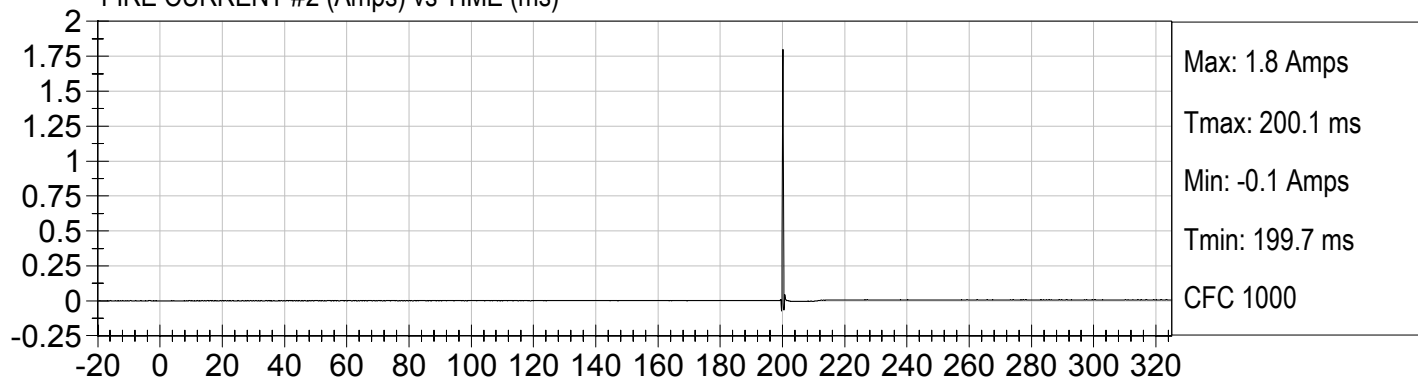
FIRE CURRENT #1 (Amps) vs TIME (ms)



FIRE VOLTAGE #2 (Volts) vs TIME (ms)

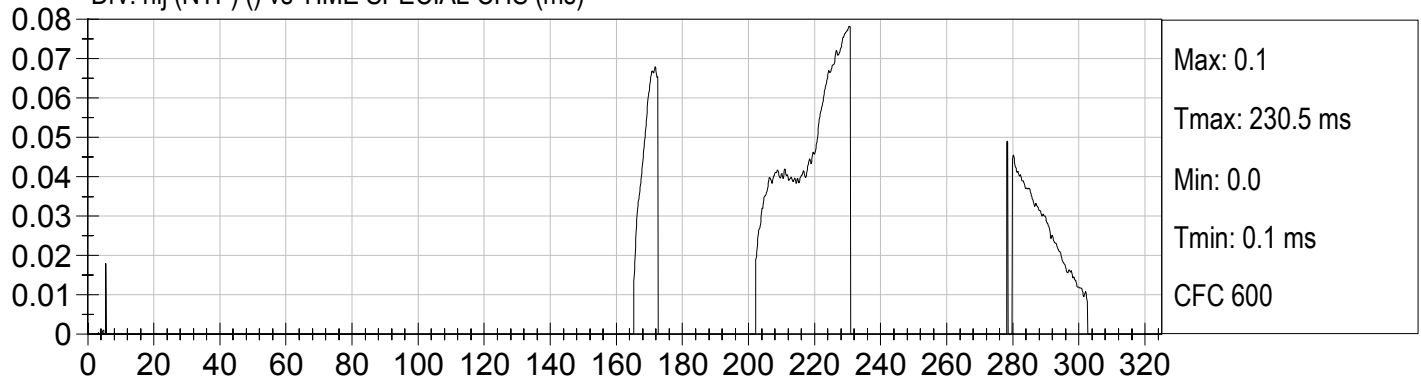


FIRE CURRENT #2 (Amps) vs TIME (ms)

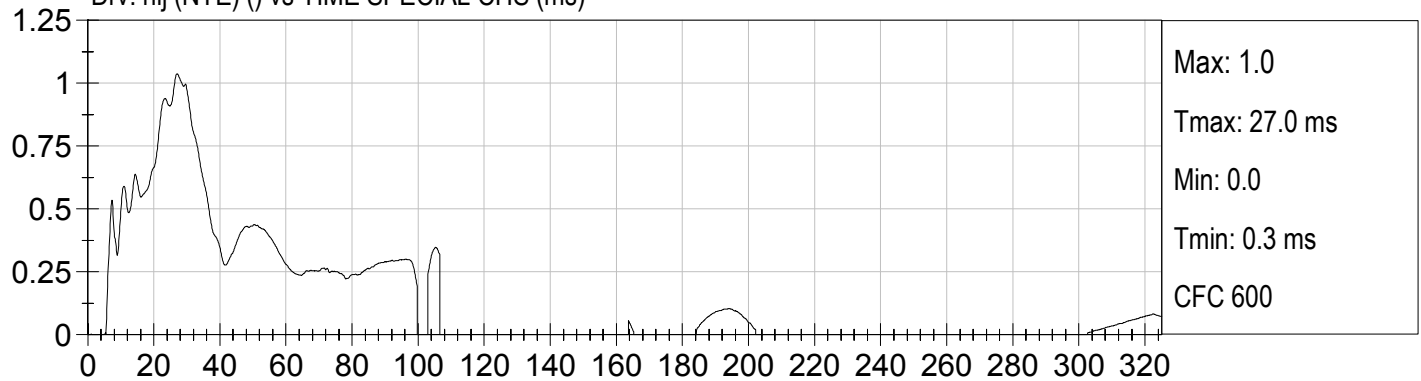




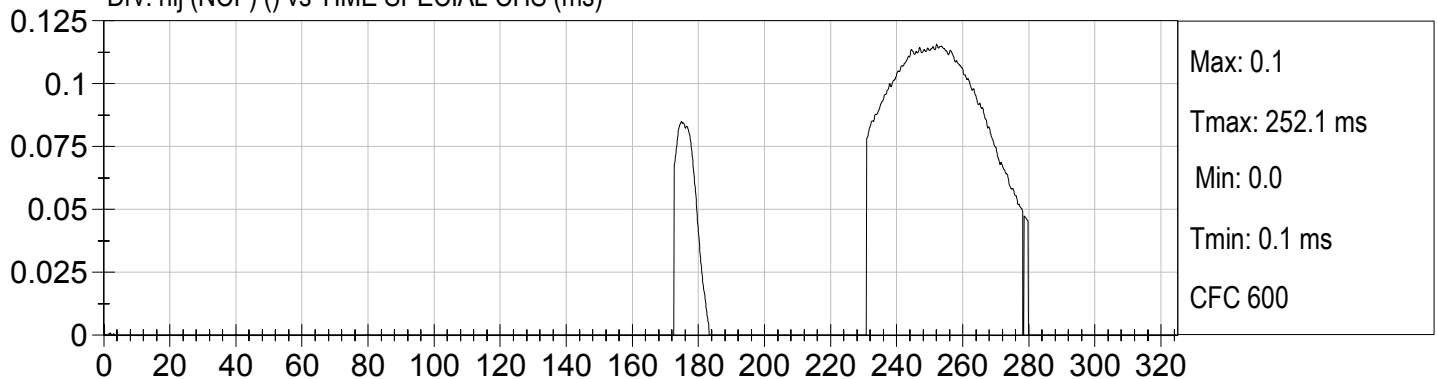
Drv. nij (NTF) ( ) vs TIME SPECIAL CHS (ms)



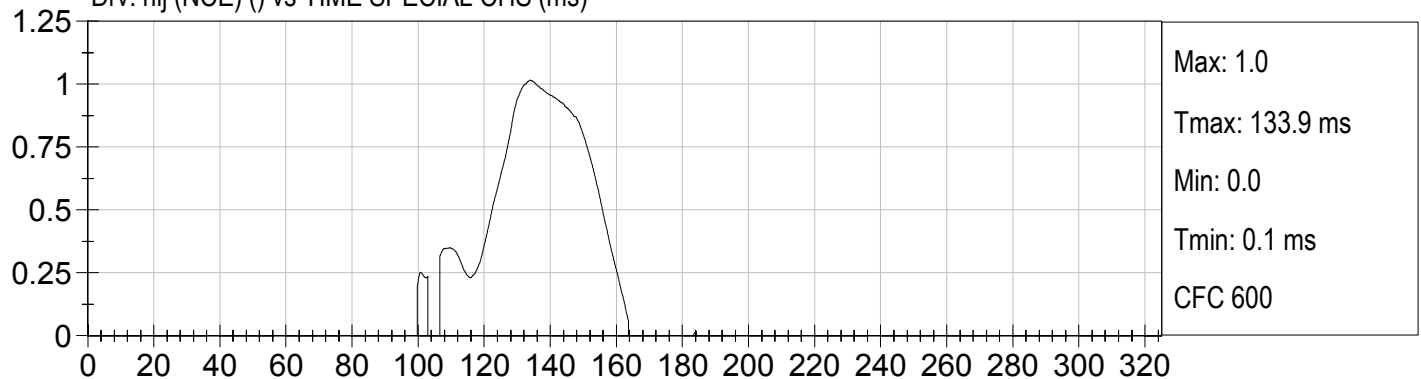
Drv. nij (NTE) ( ) vs TIME SPECIAL CHS (ms)



Drv. nij (NCF) ( ) vs TIME SPECIAL CHS (ms)



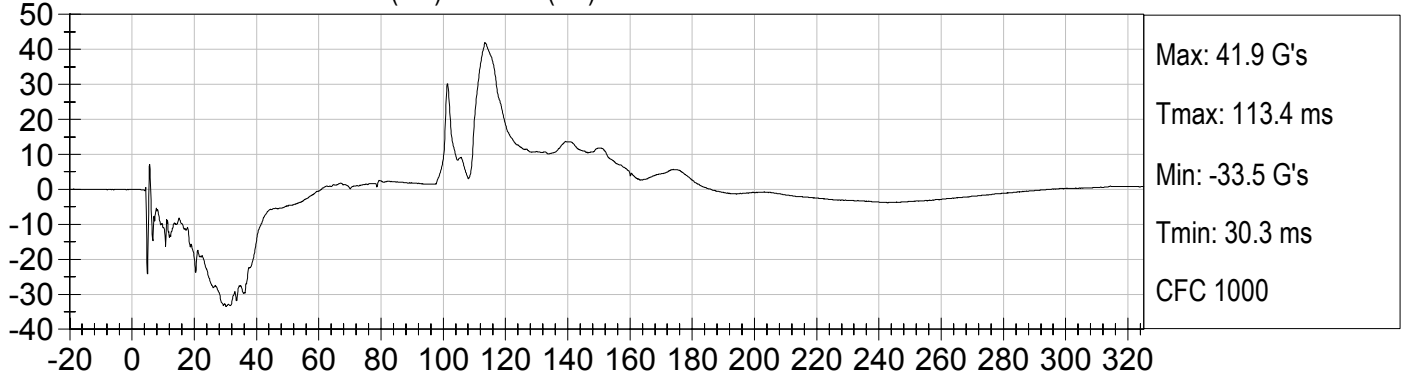
Drv. nij (NCE) ( ) vs TIME SPECIAL CHS (ms)



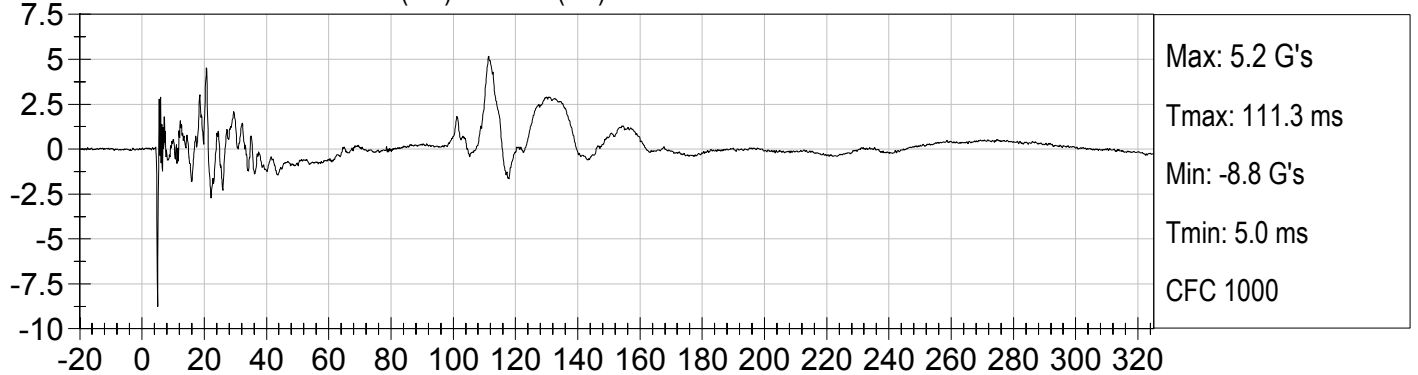




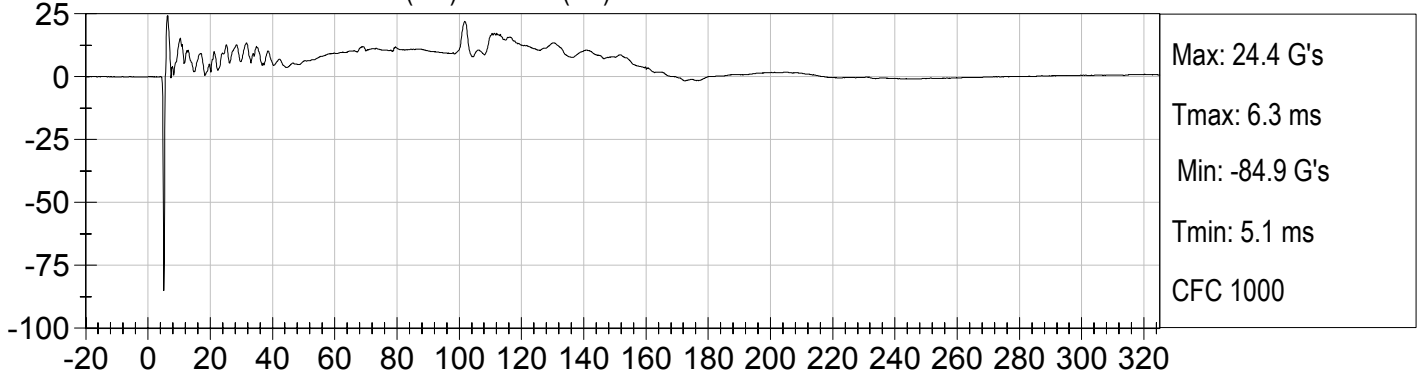
5TH FEM. DRIVER HEAD X (G's) vs TIME (ms)



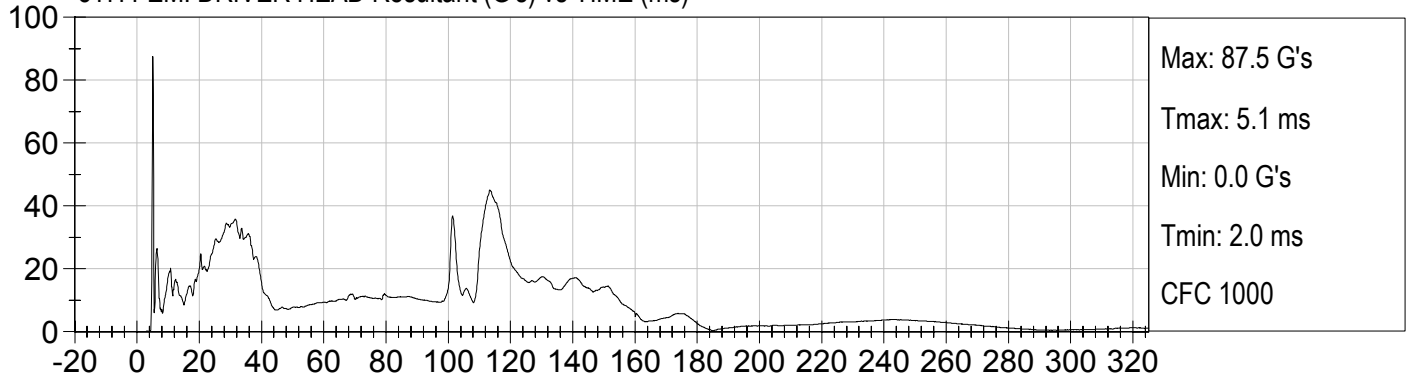
5TH FEM. DRIVER HEAD Y (G's) vs TIME (ms)

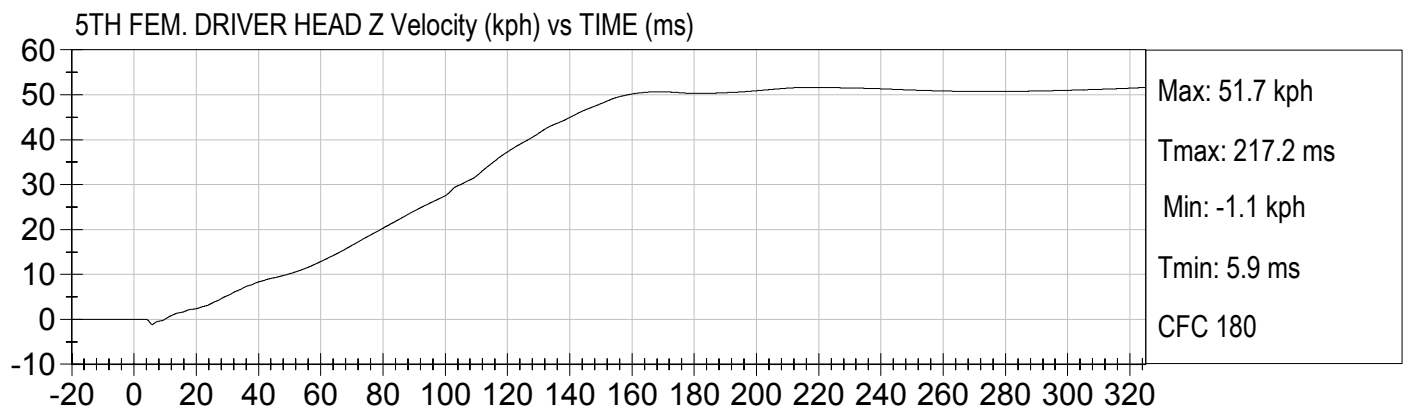
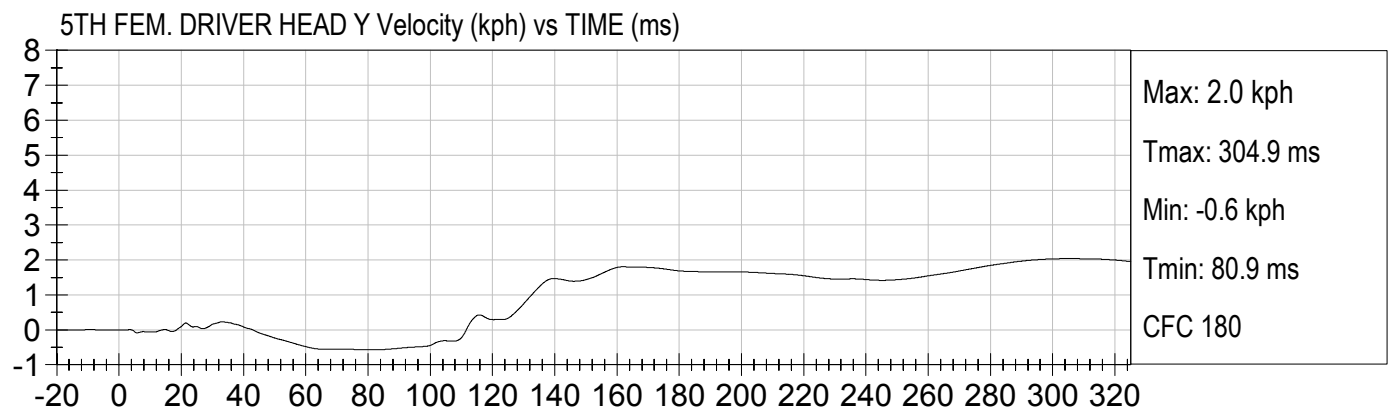
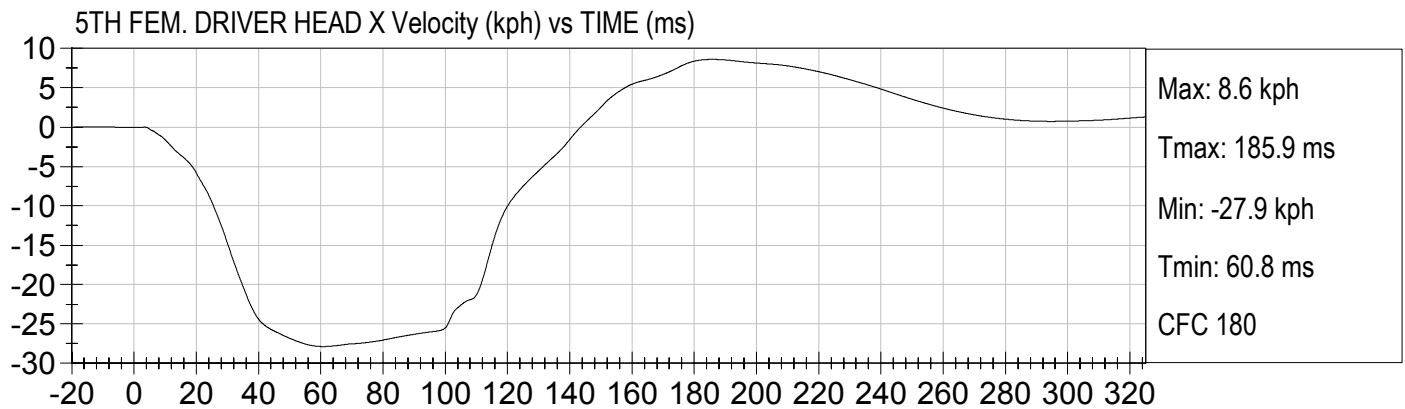


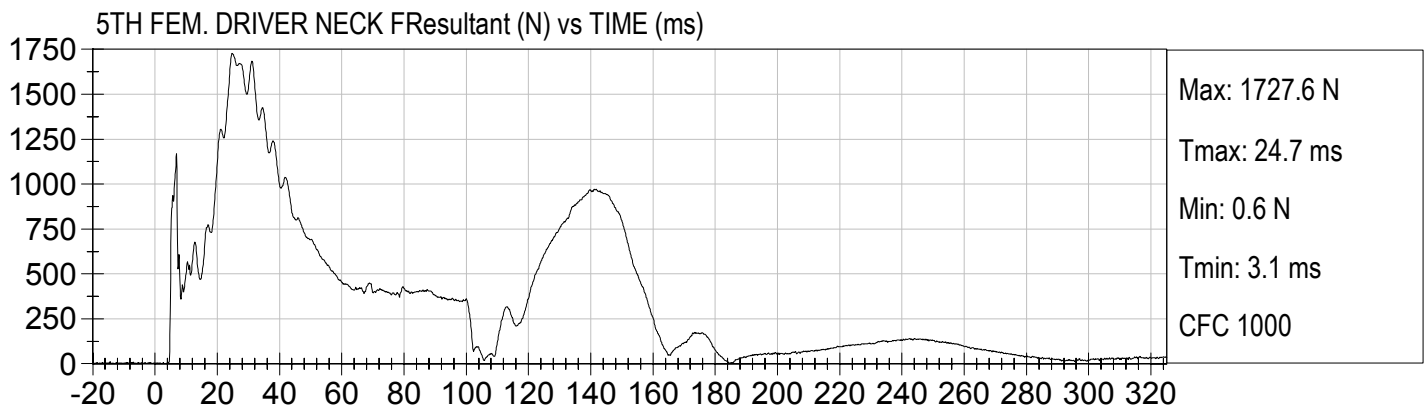
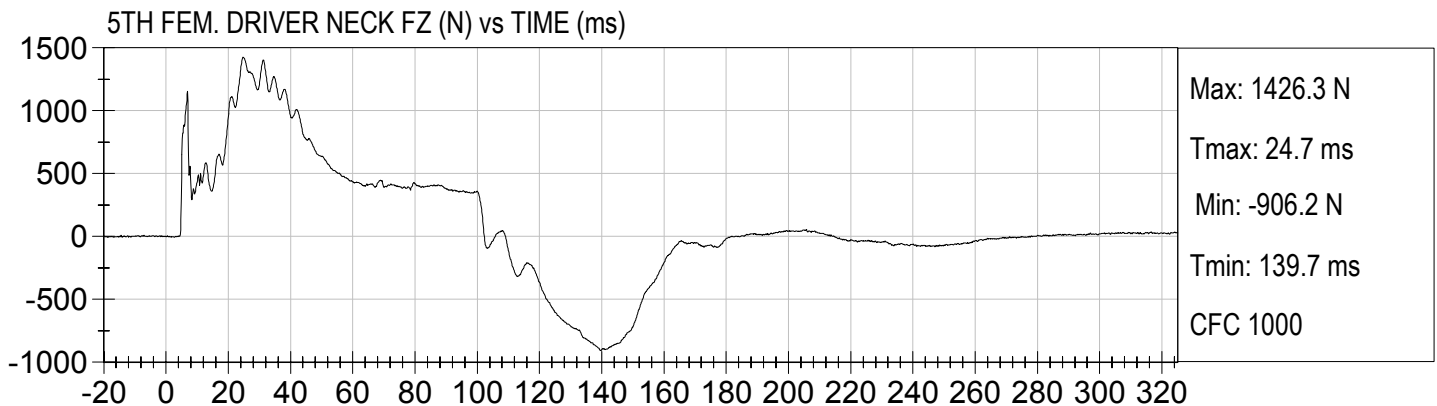
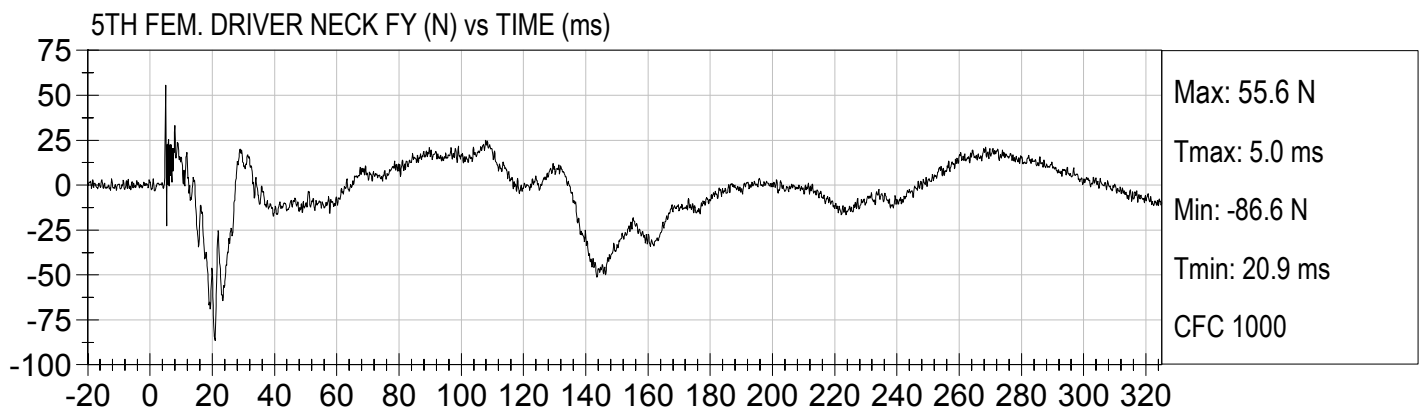
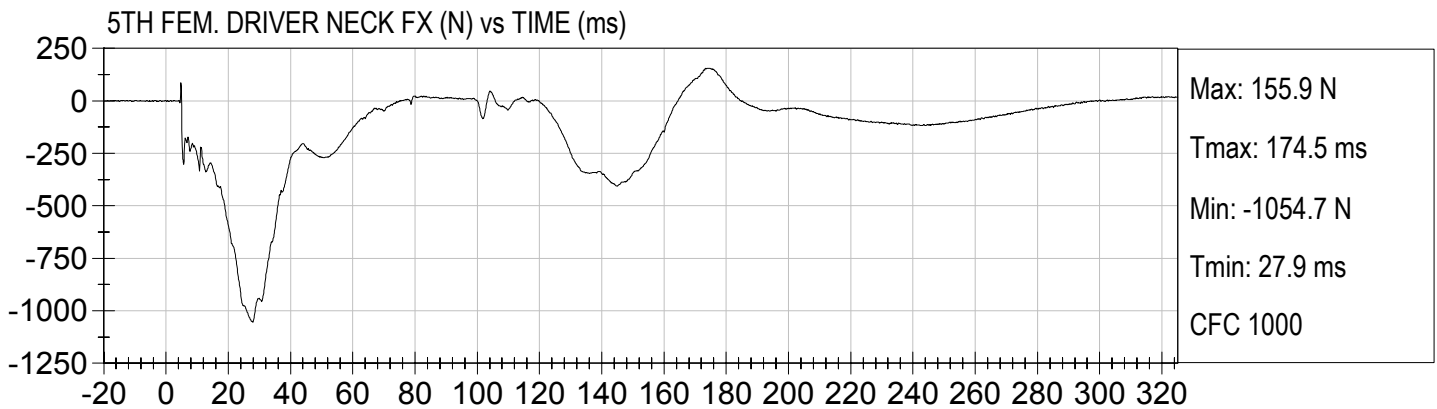
5TH FEM. DRIVER HEAD Z (G's) vs TIME (ms)

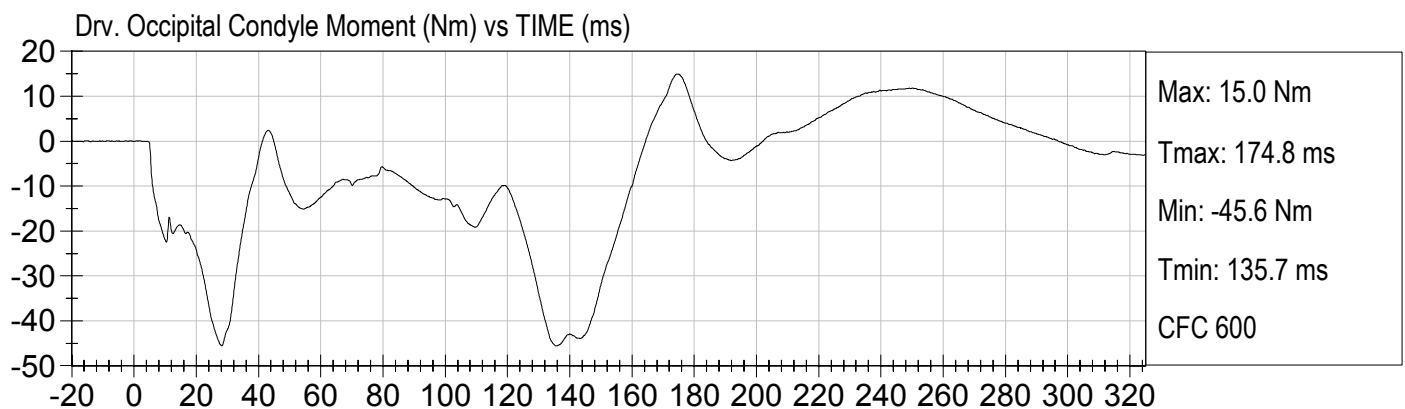
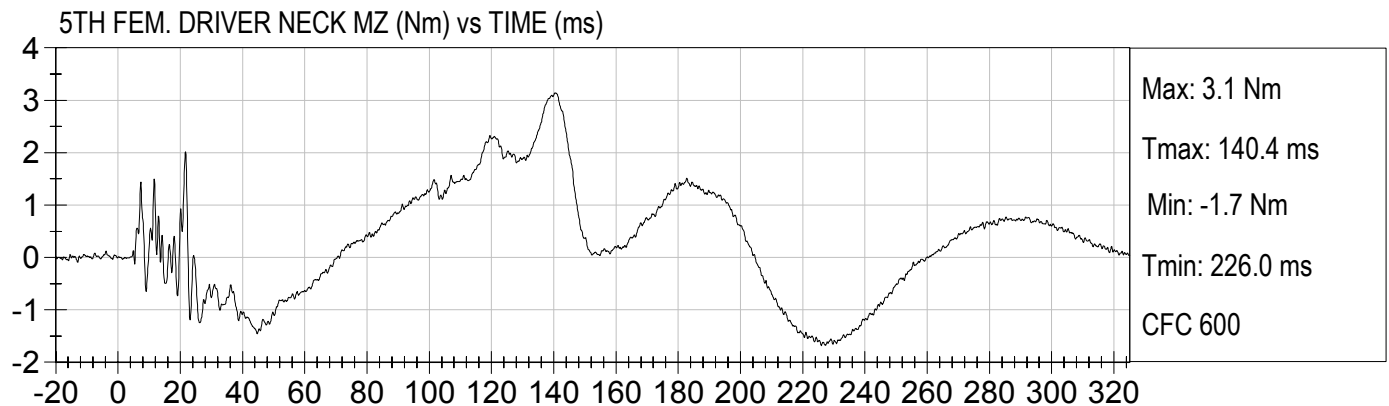
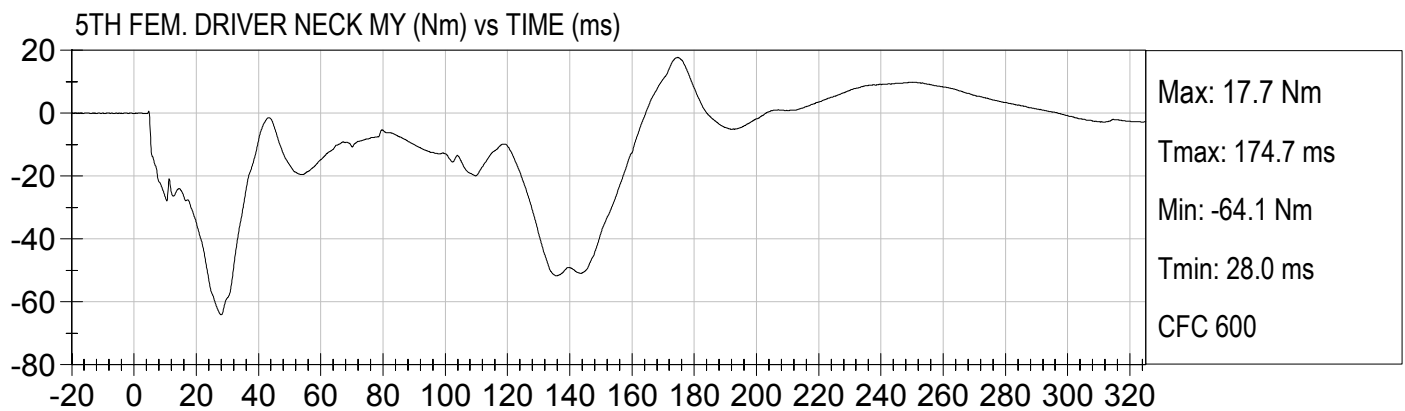
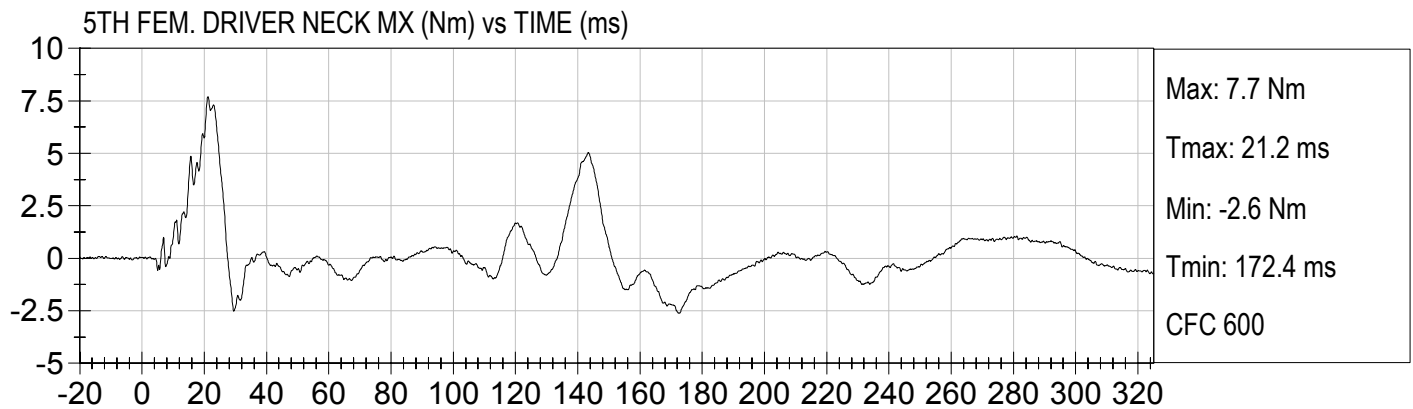


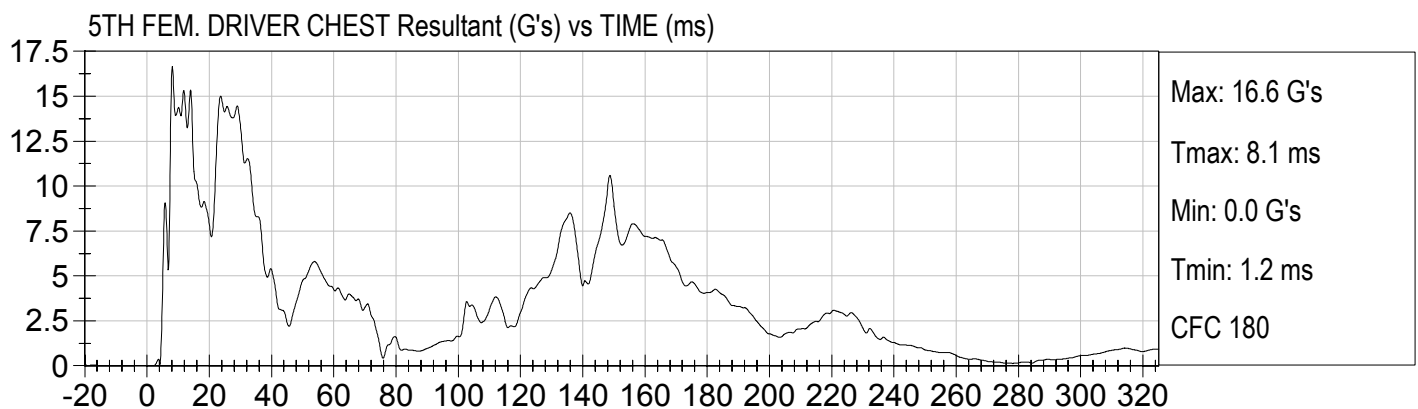
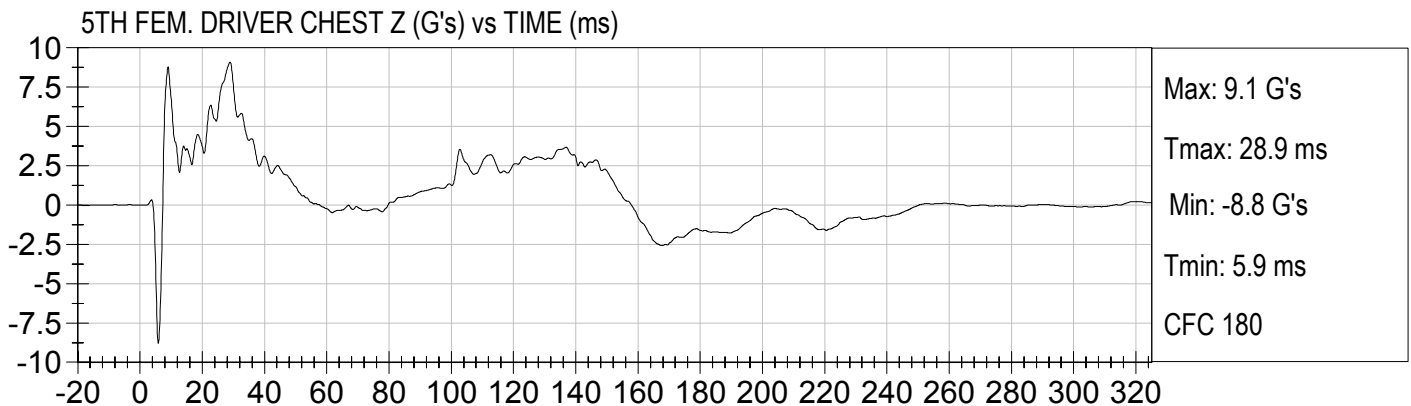
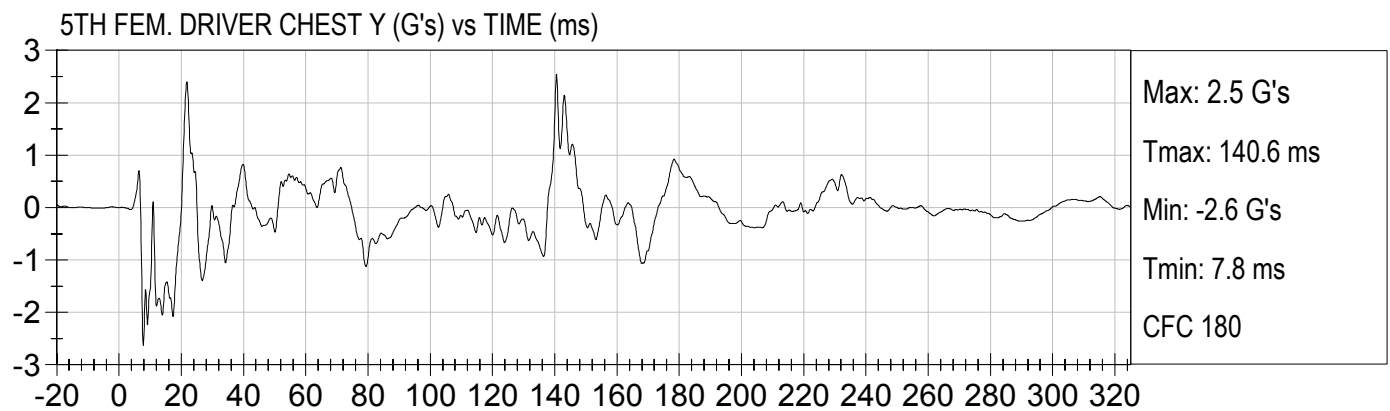
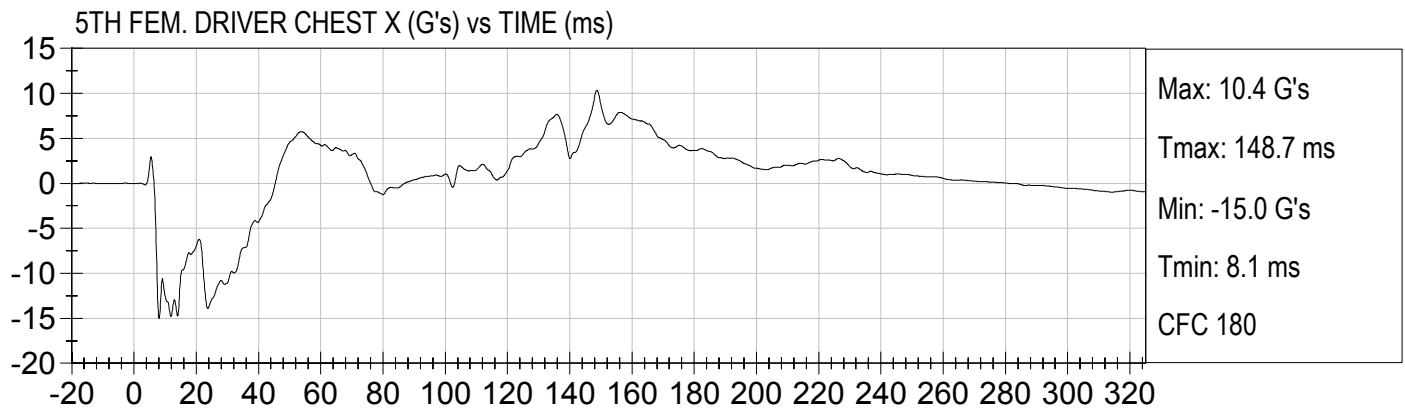
5TH FEM. DRIVER HEAD Resultant (G's) vs TIME (ms)





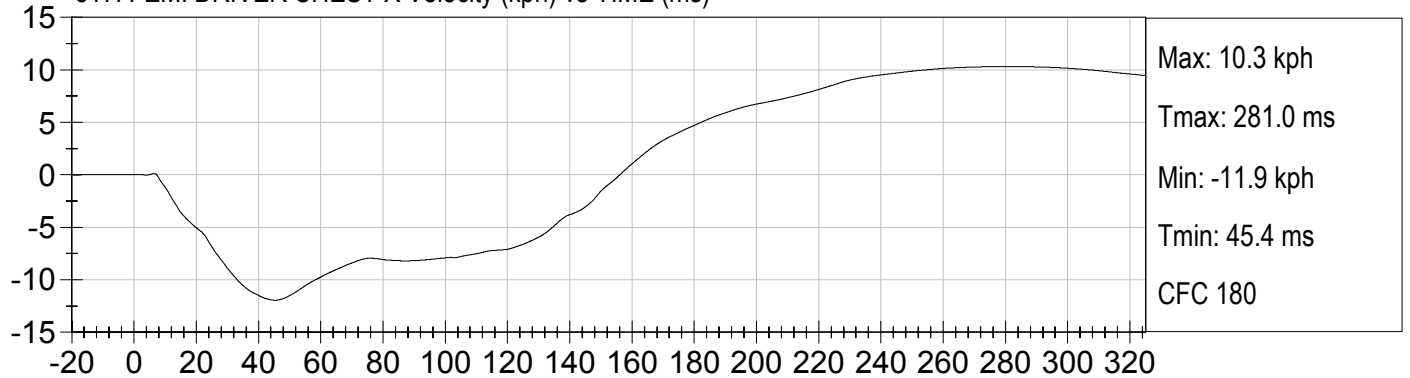




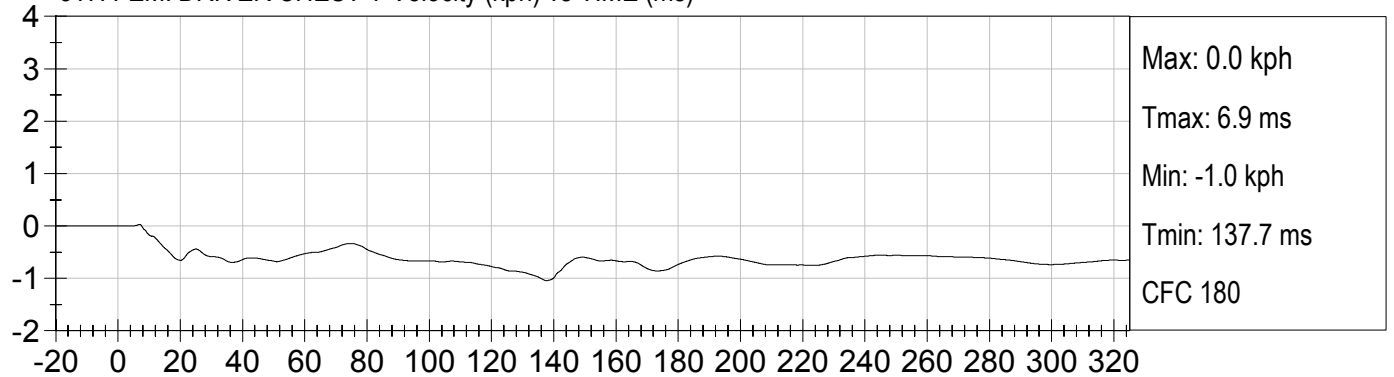




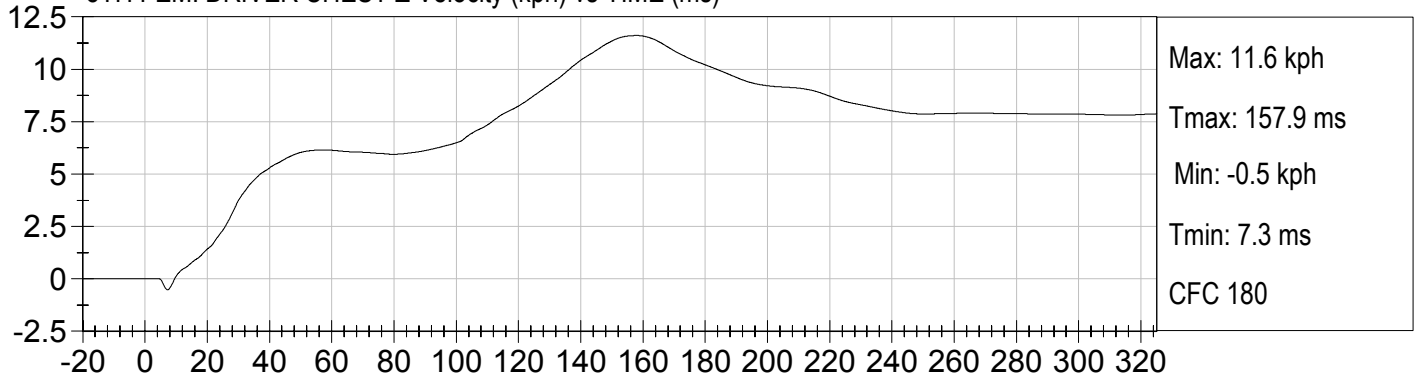
5TH FEM. DRIVER CHEST X Velocity (kph) vs TIME (ms)



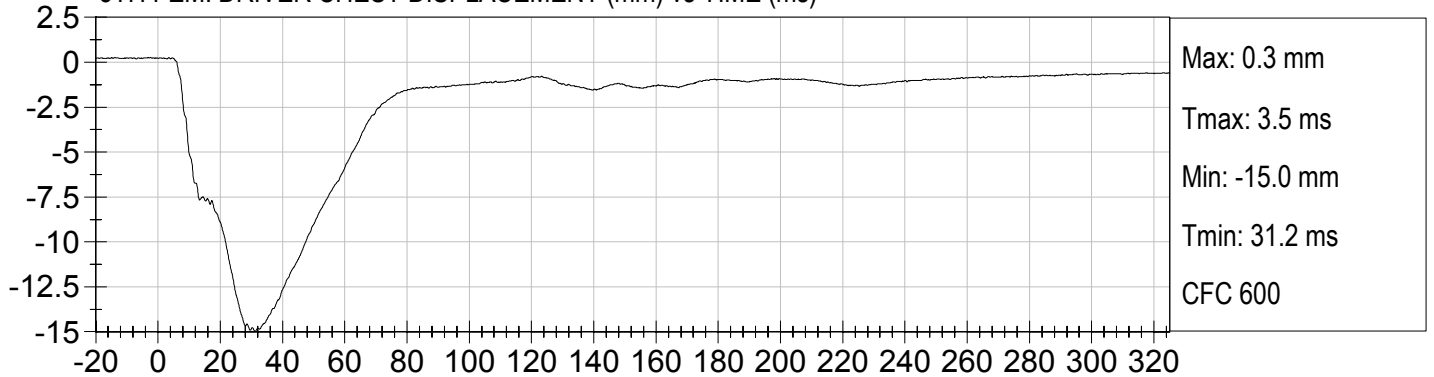
5TH FEM. DRIVER CHEST Y Velocity (kph) vs TIME (ms)

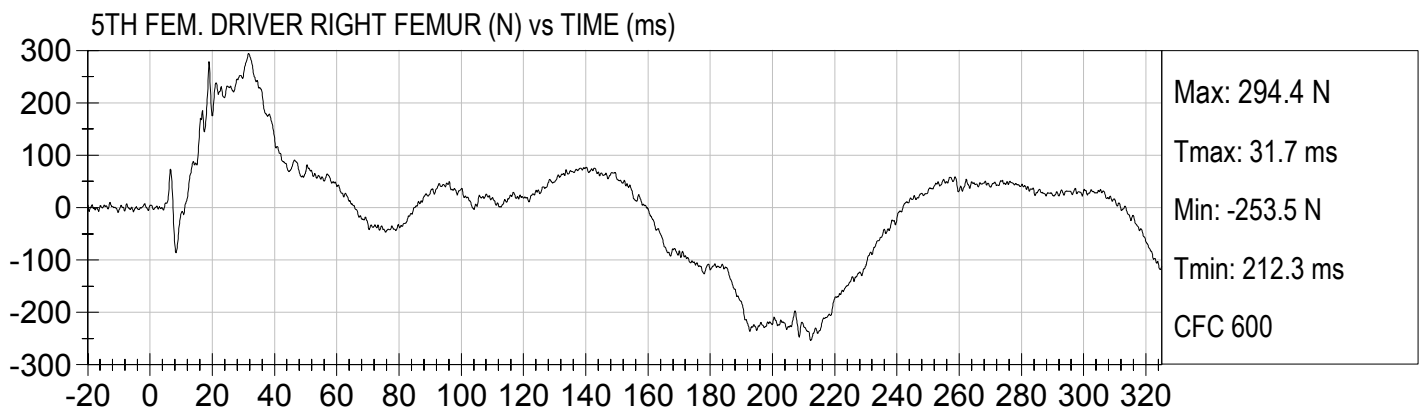
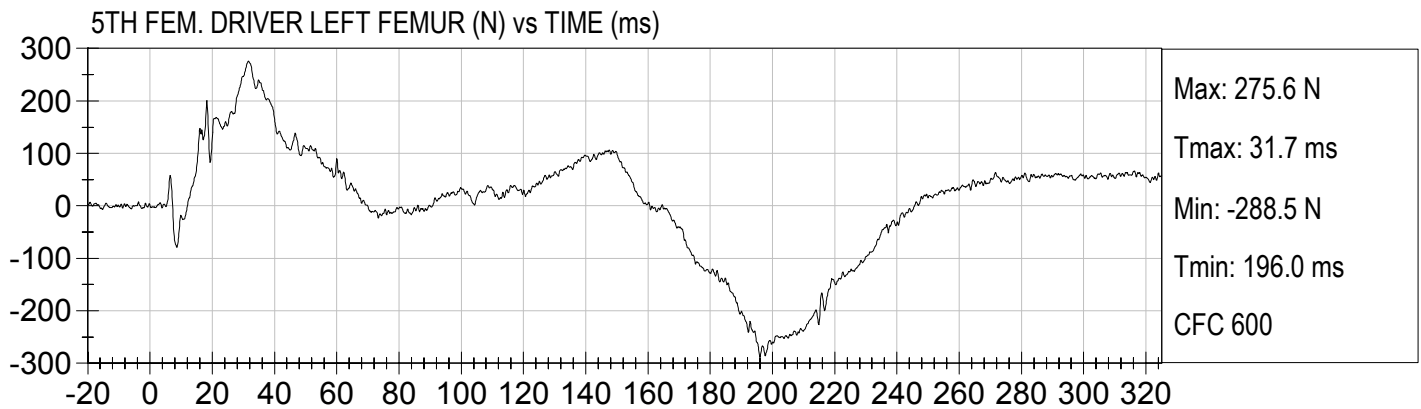


5TH FEM. DRIVER CHEST Z Velocity (kph) vs TIME (ms)



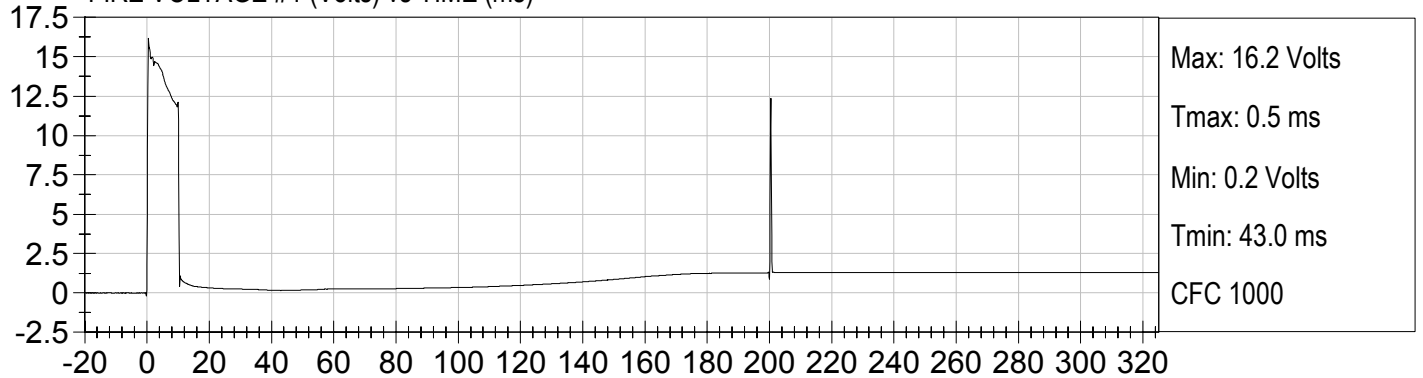
5TH FEM. DRIVER CHEST DISPLACEMENT (mm) vs TIME (ms)



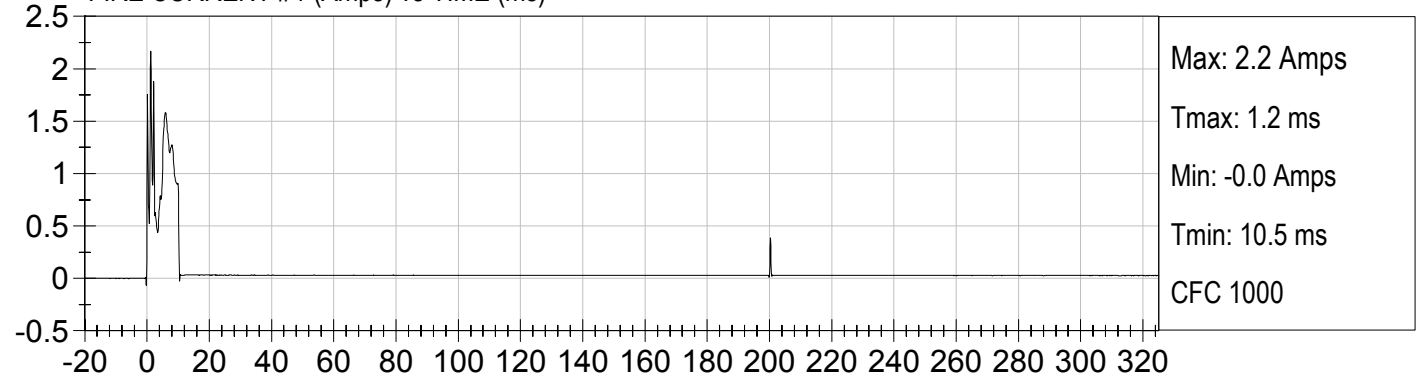




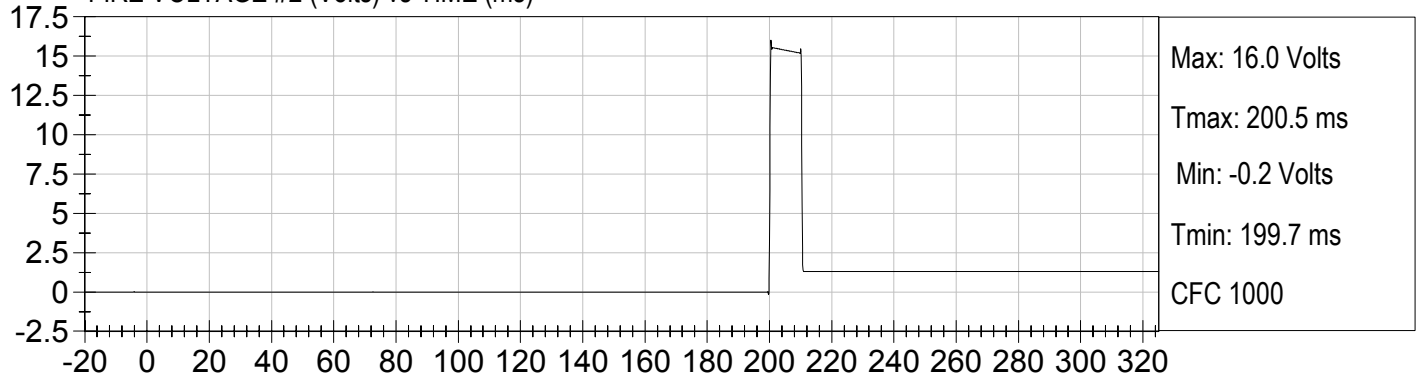
FIRE VOLTAGE #1 (Volts) vs TIME (ms)



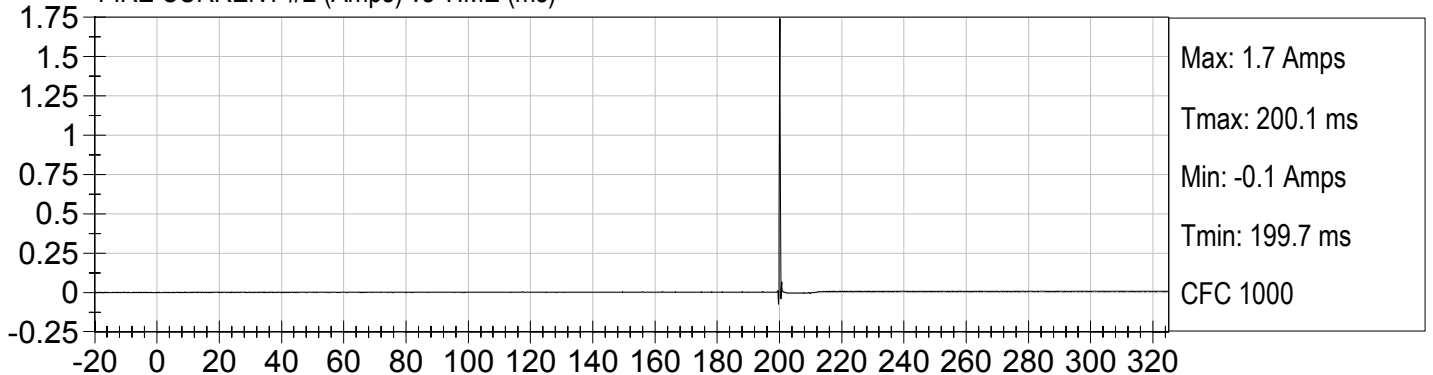
FIRE CURRENT #1 (Amps) vs TIME (ms)



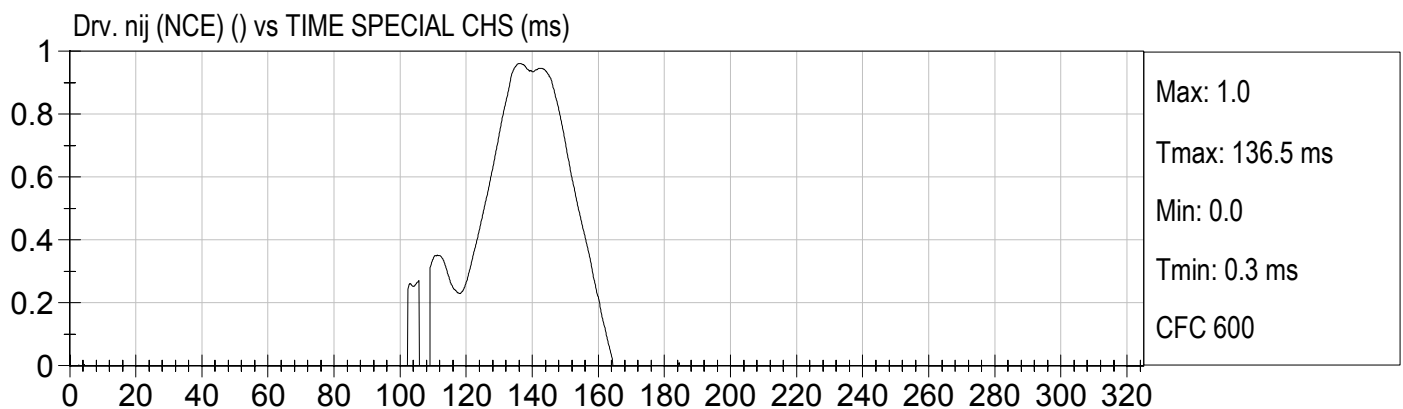
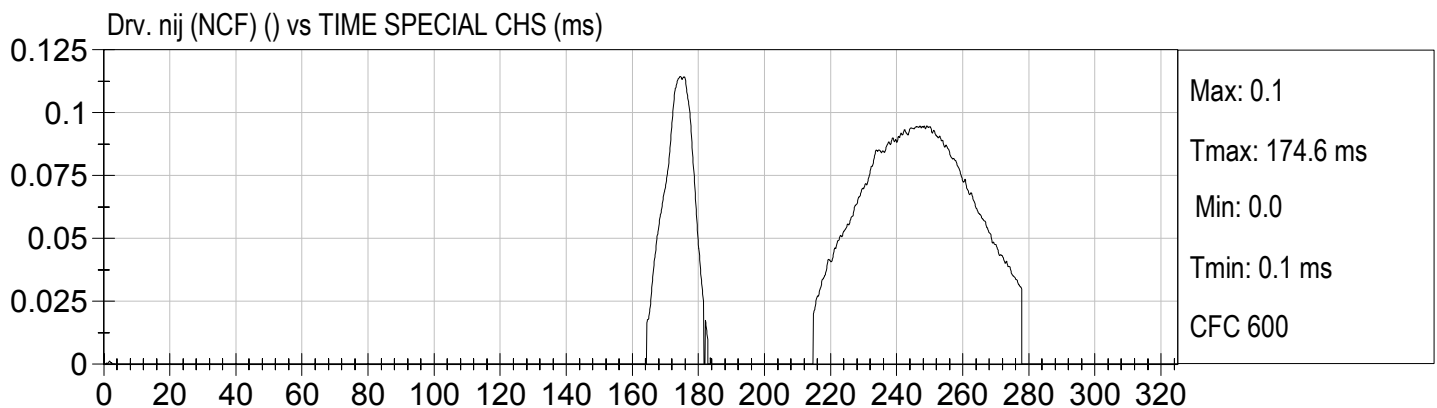
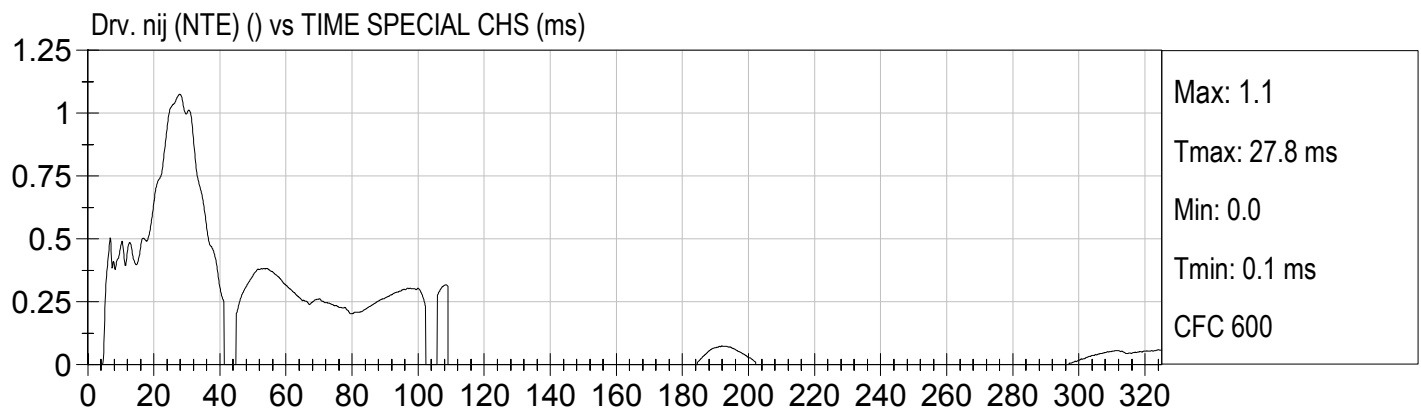
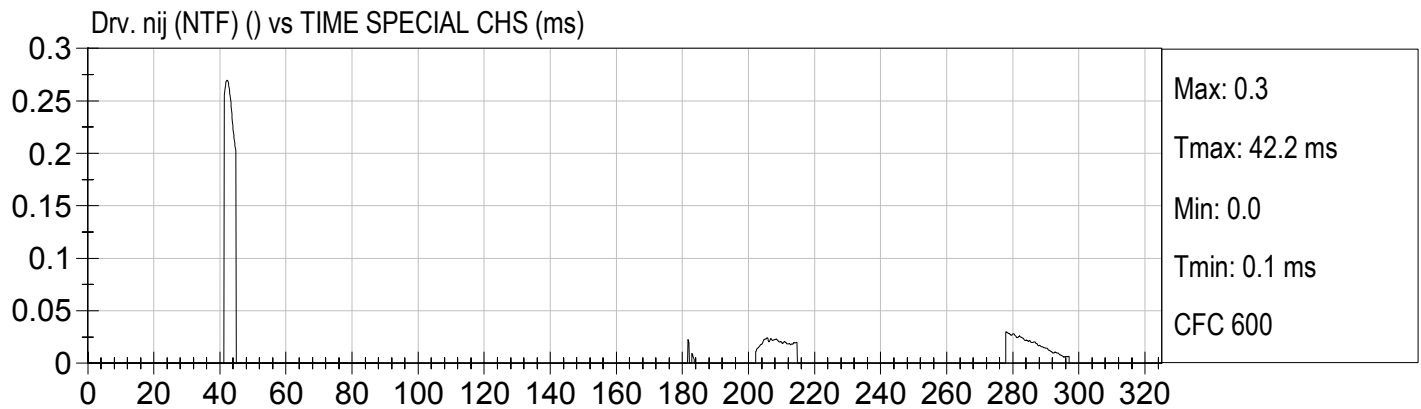
FIRE VOLTAGE #2 (Volts) vs TIME (ms)

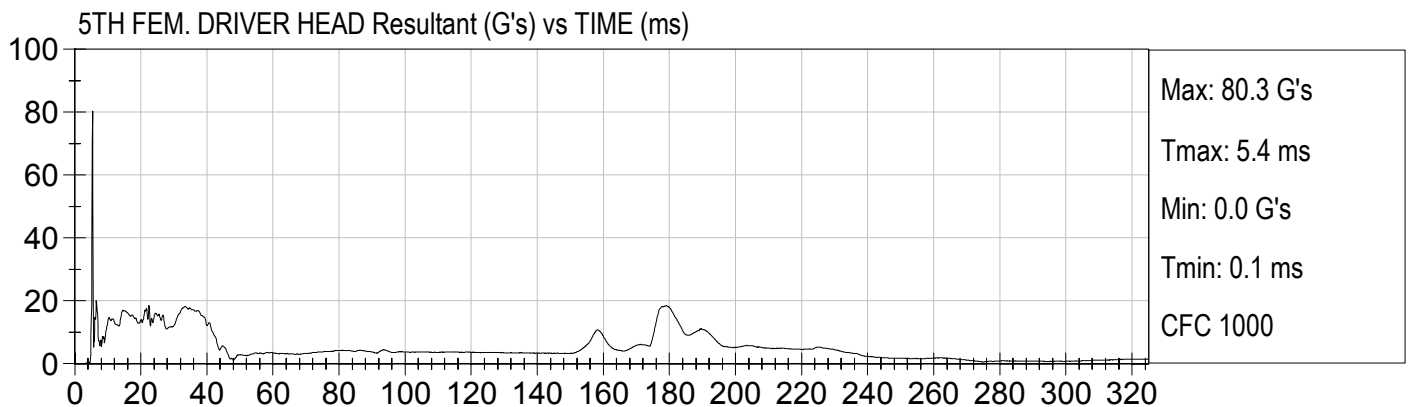
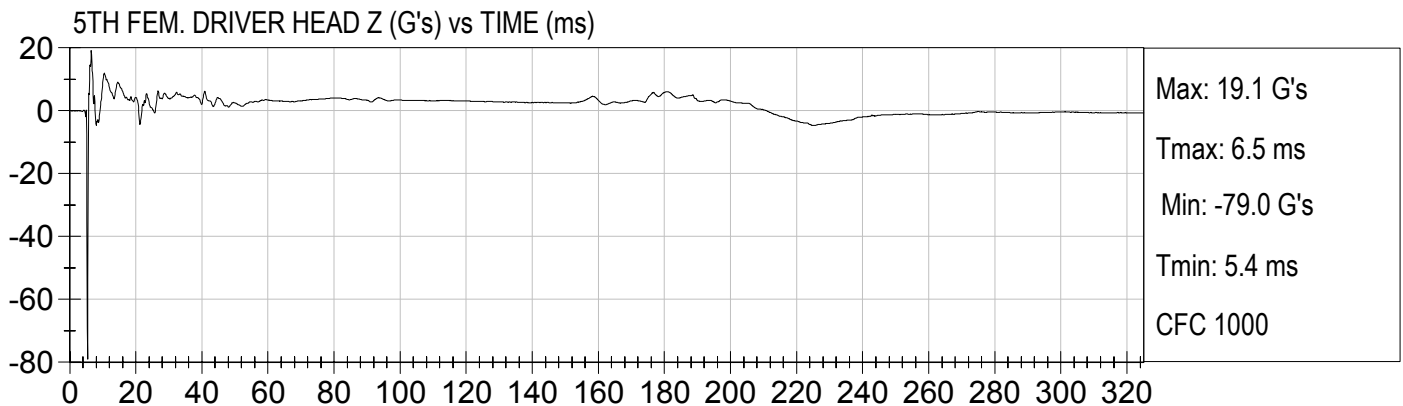
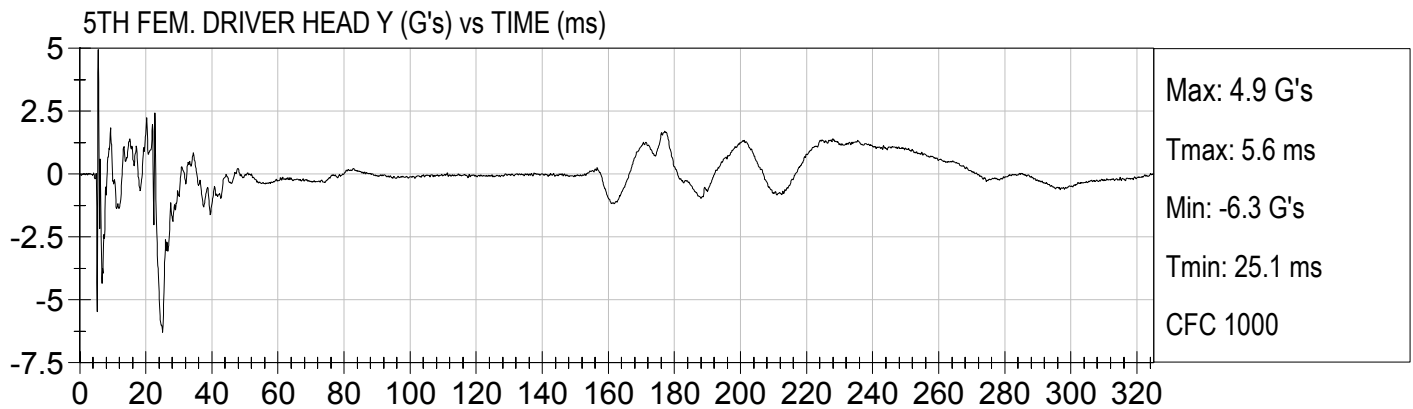
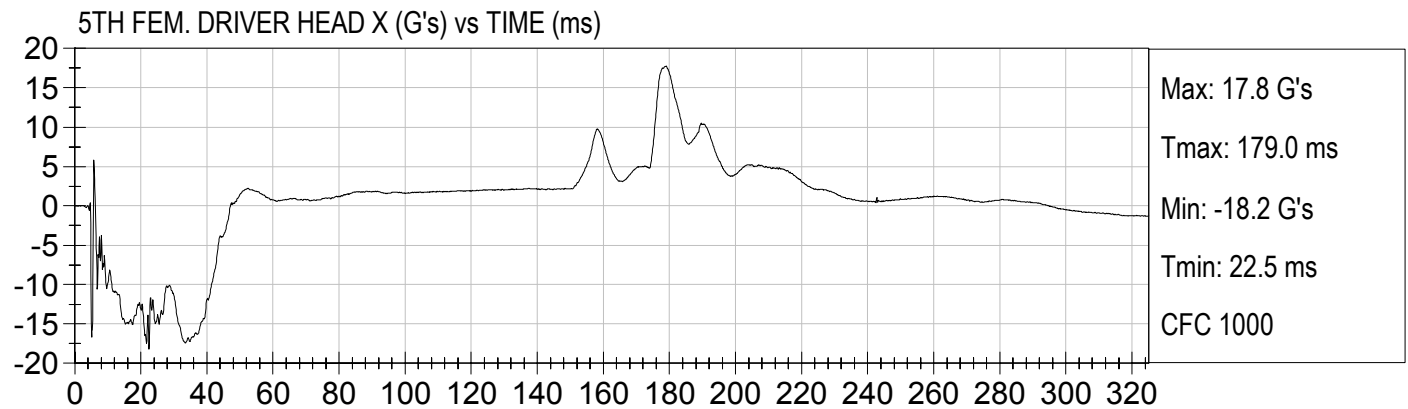


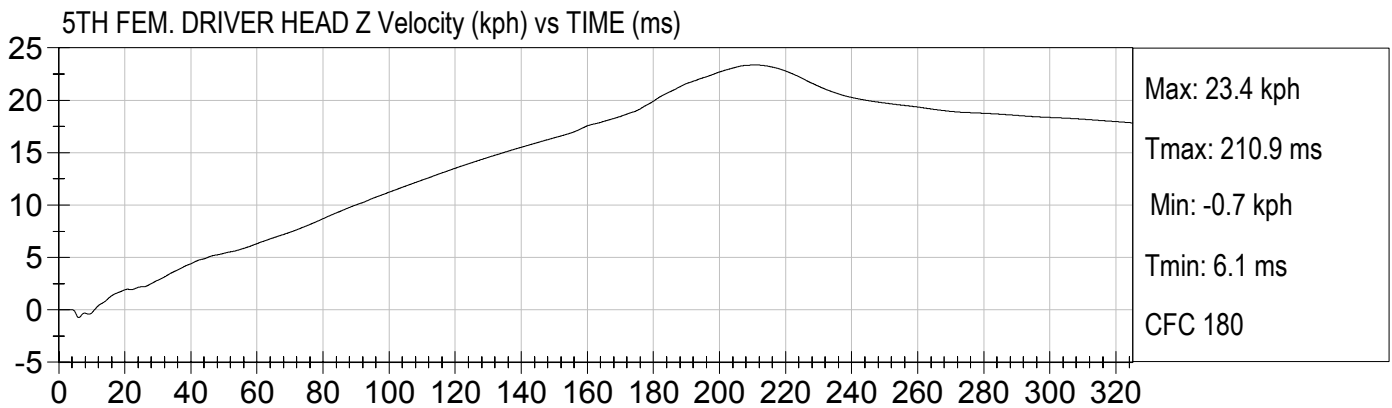
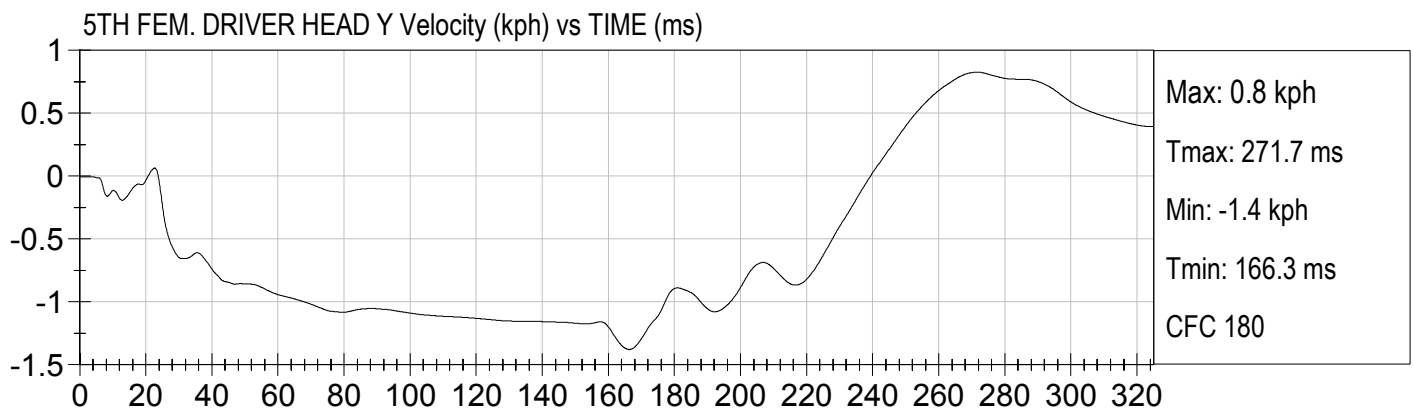
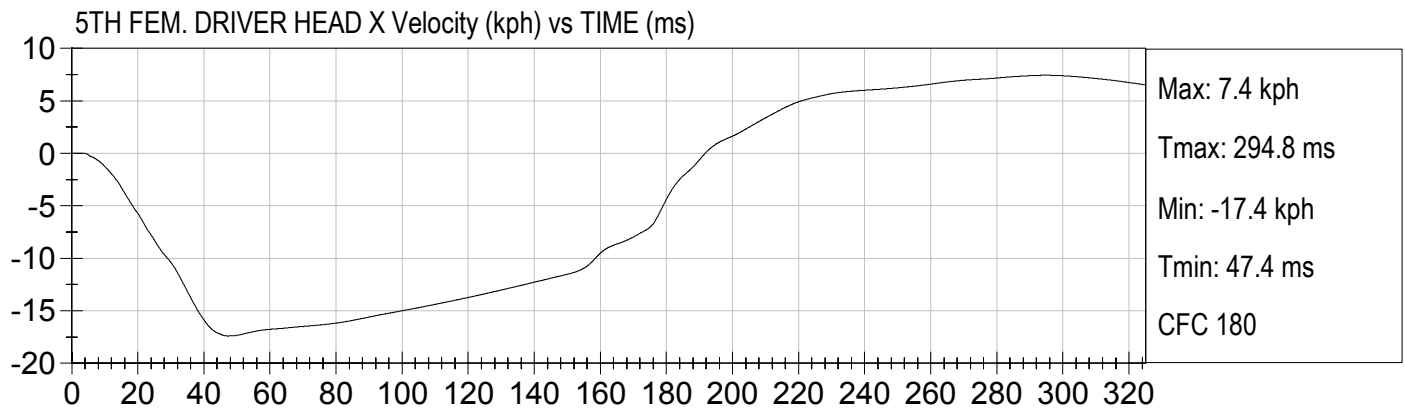
FIRE CURRENT #2 (Amps) vs TIME (ms)





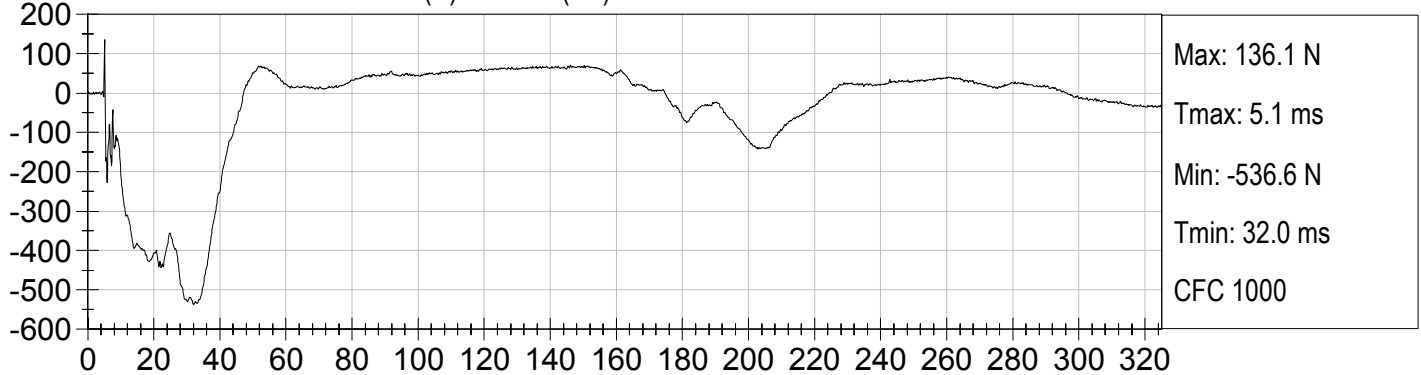




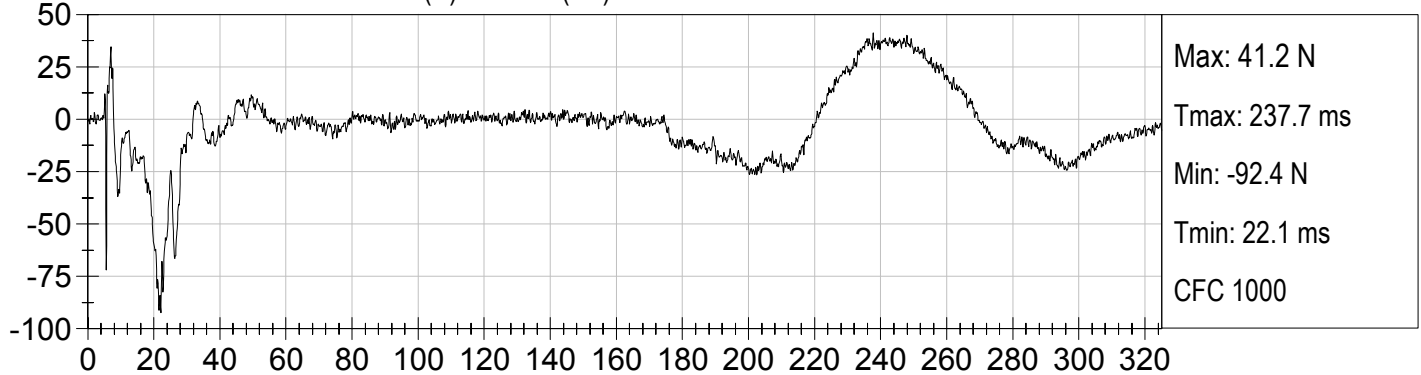




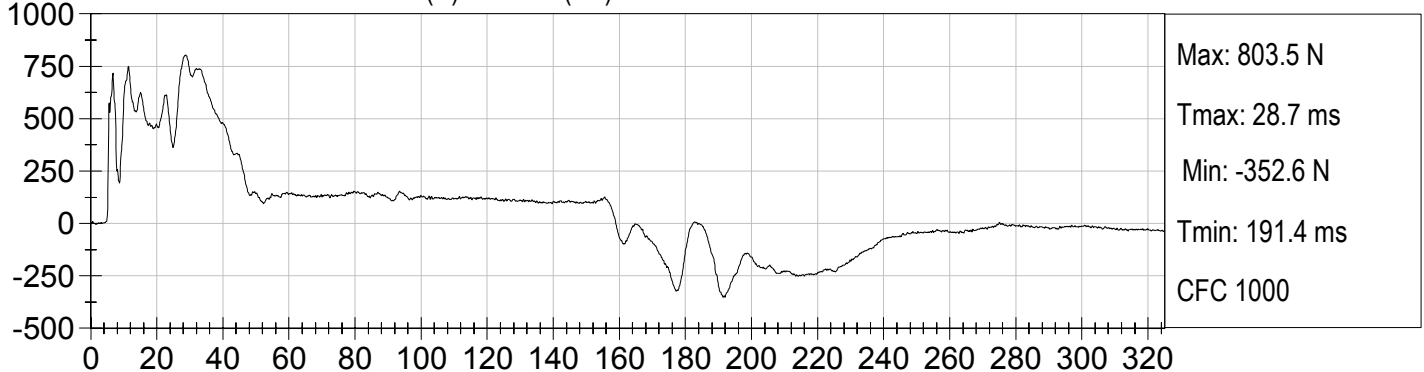
5TH FEM. DRIVER NECK FX (N) vs TIME (ms)



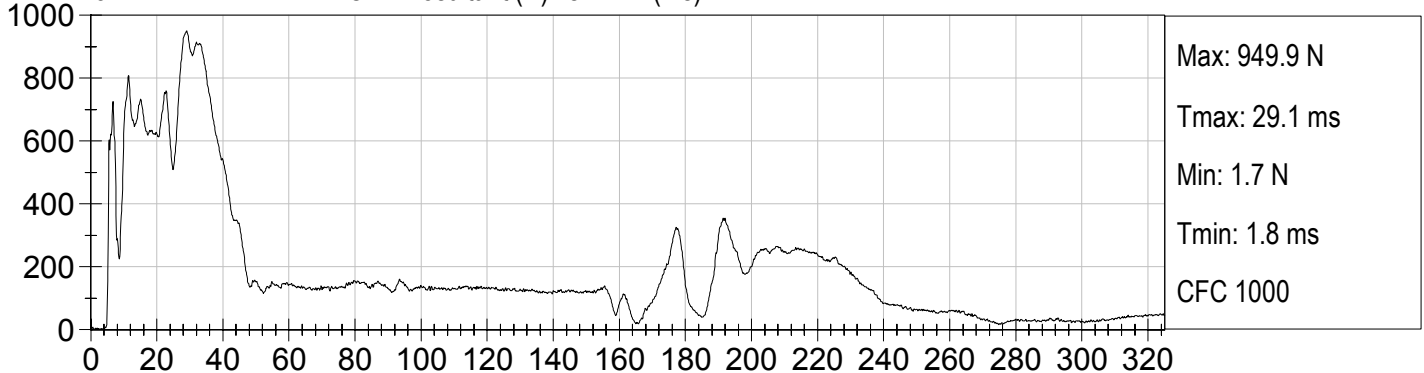
5TH FEM. DRIVER NECK FY (N) vs TIME (ms)

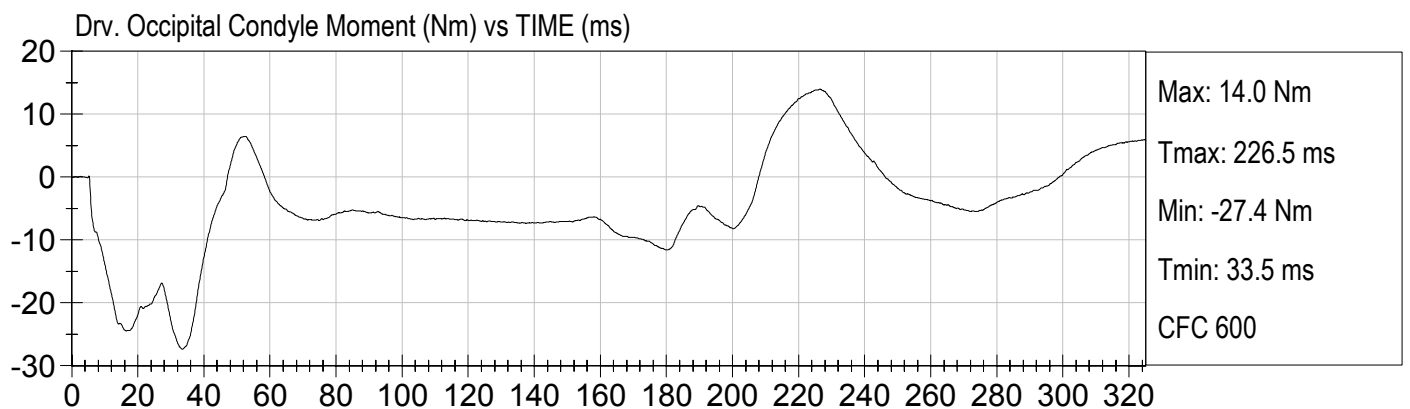
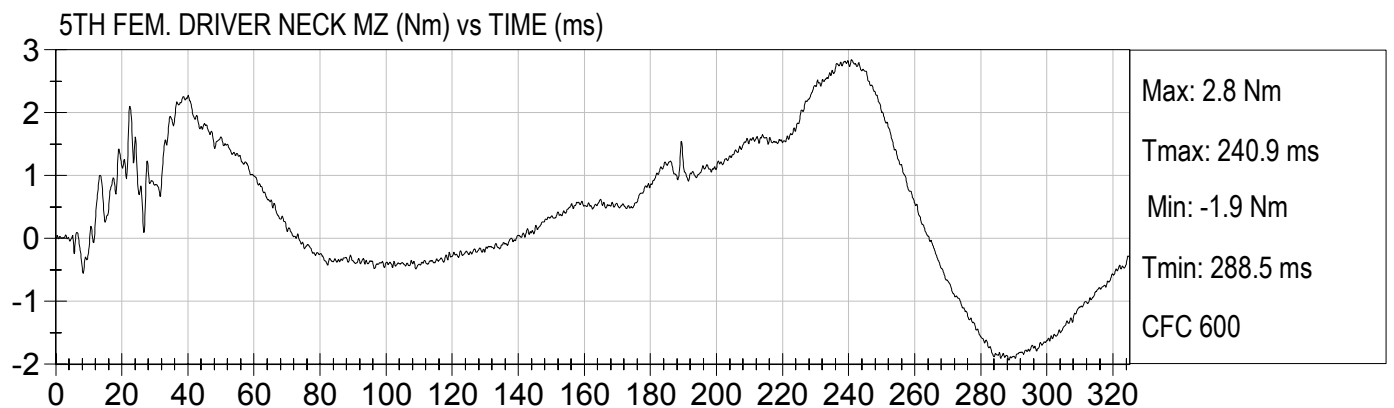
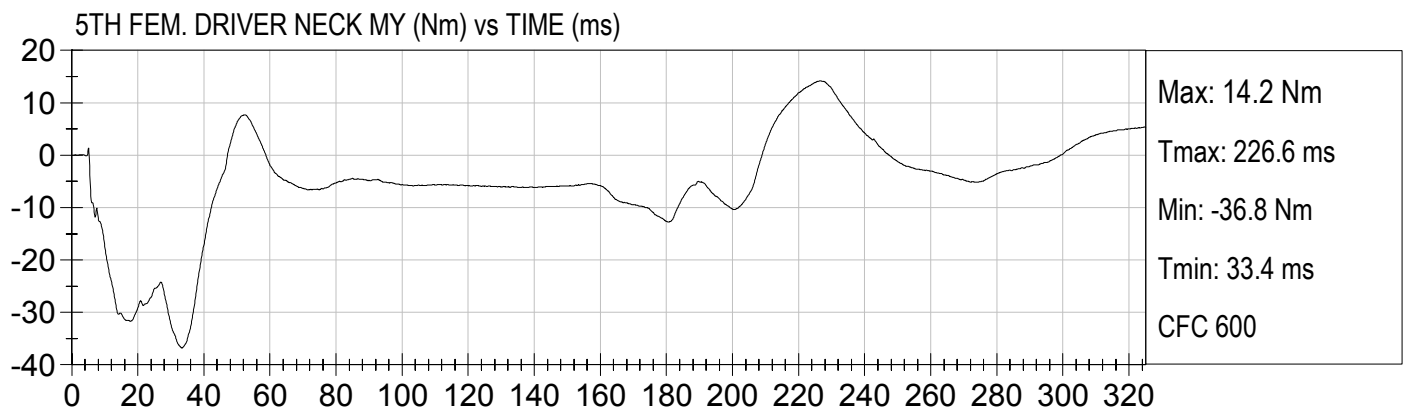
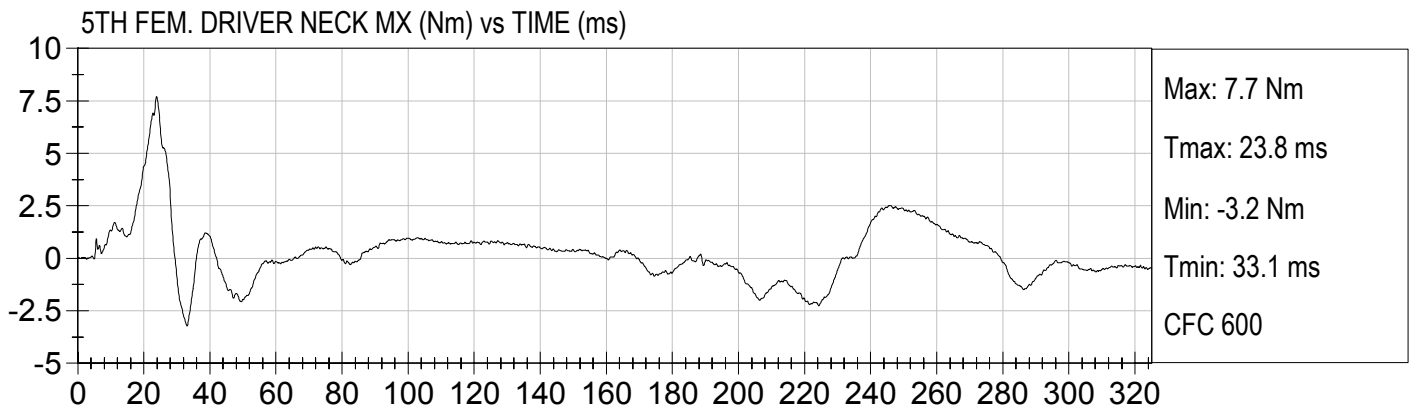


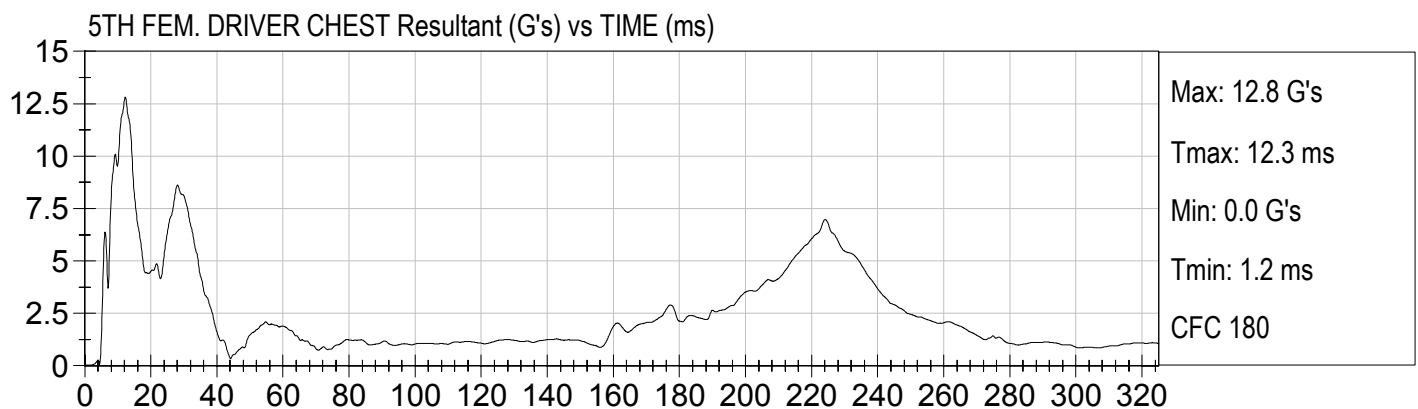
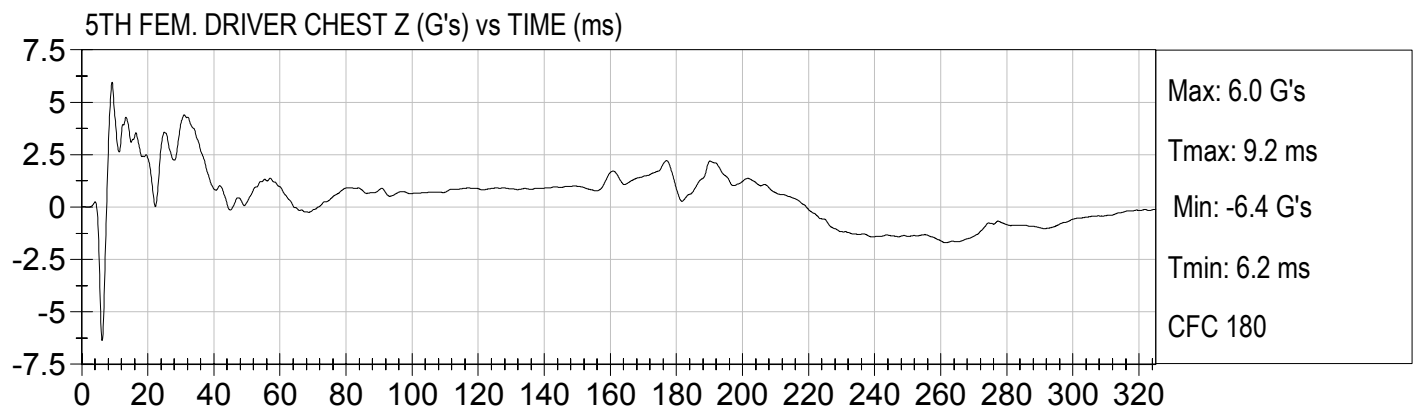
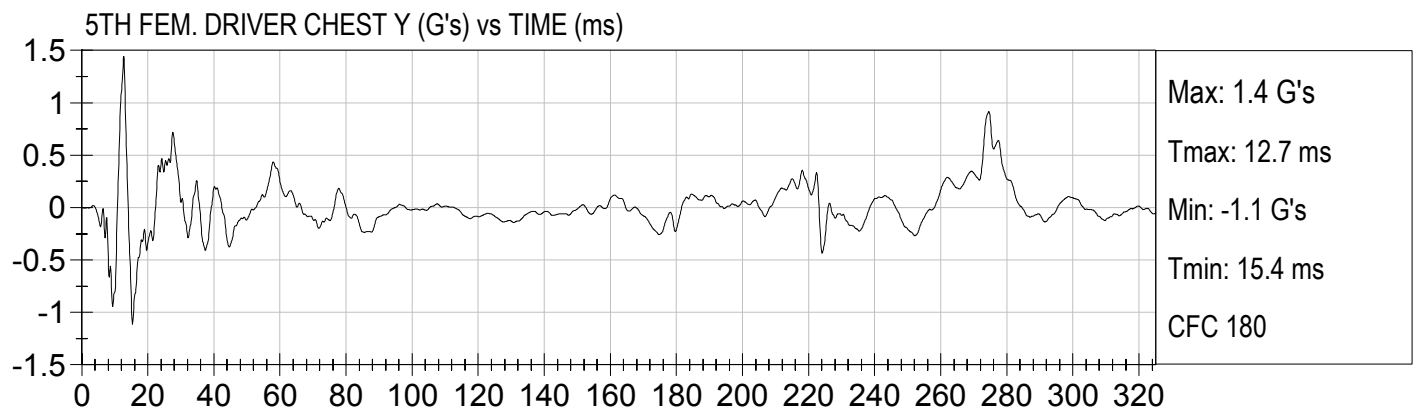
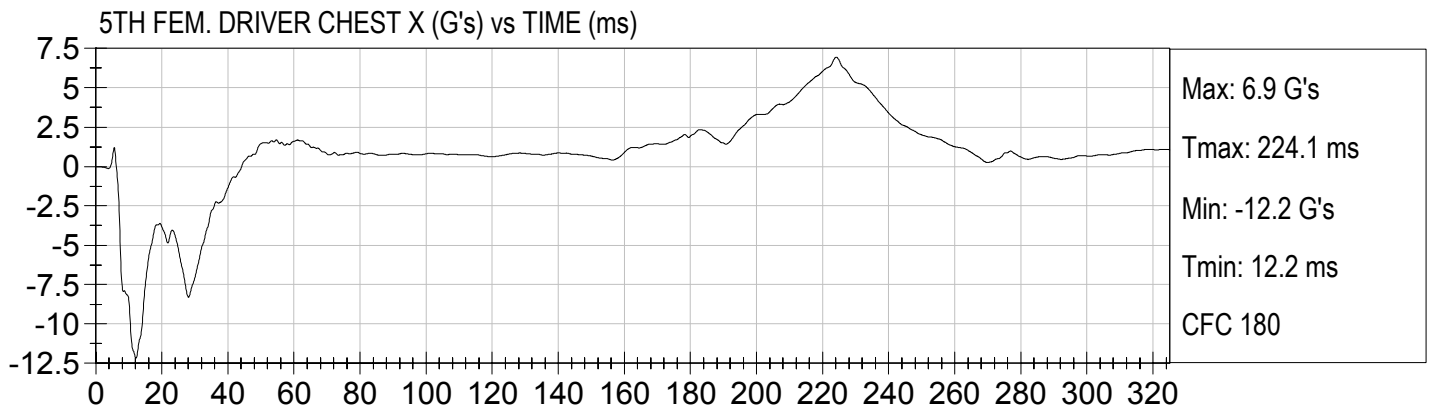
5TH FEM. DRIVER NECK FZ (N) vs TIME (ms)



5TH FEM. DRIVER NECK FResultant (N) vs TIME (ms)

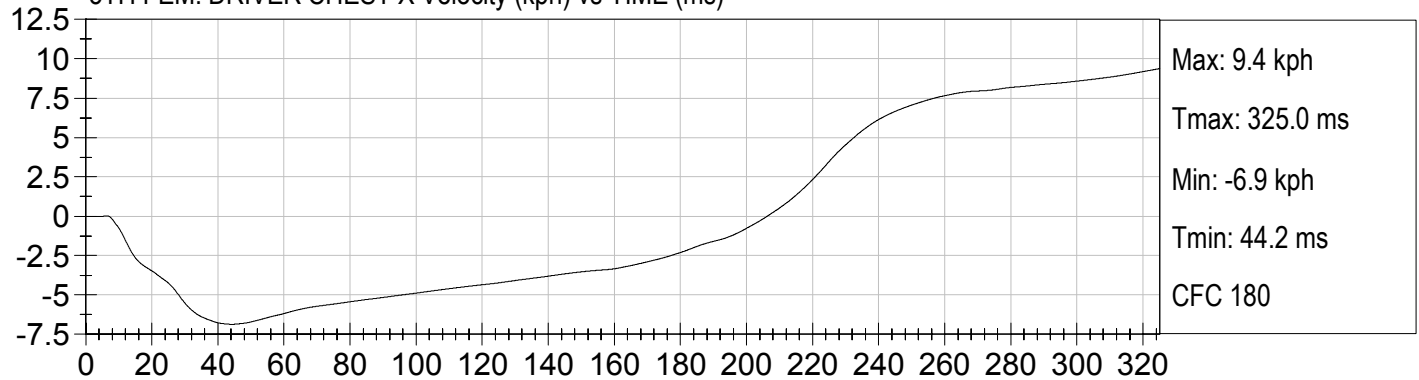




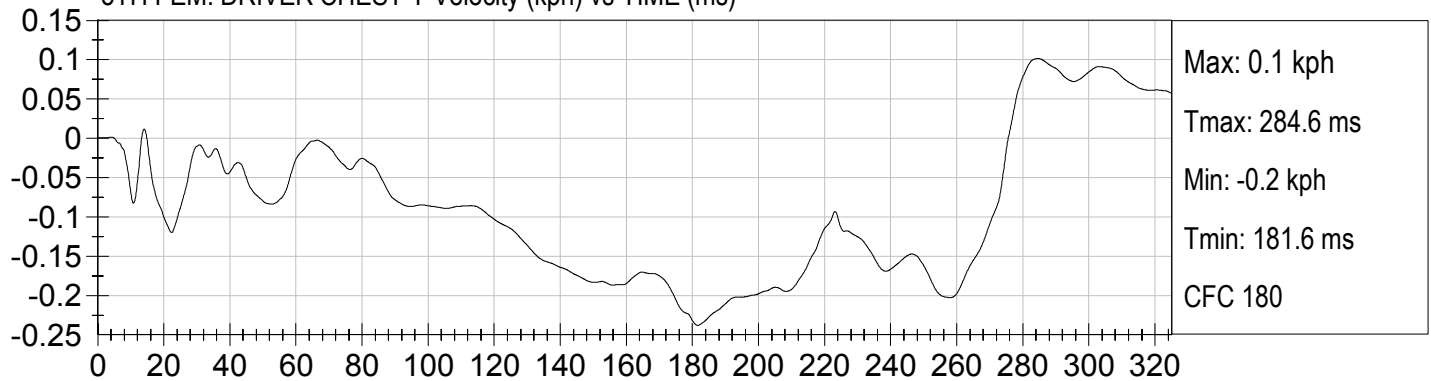




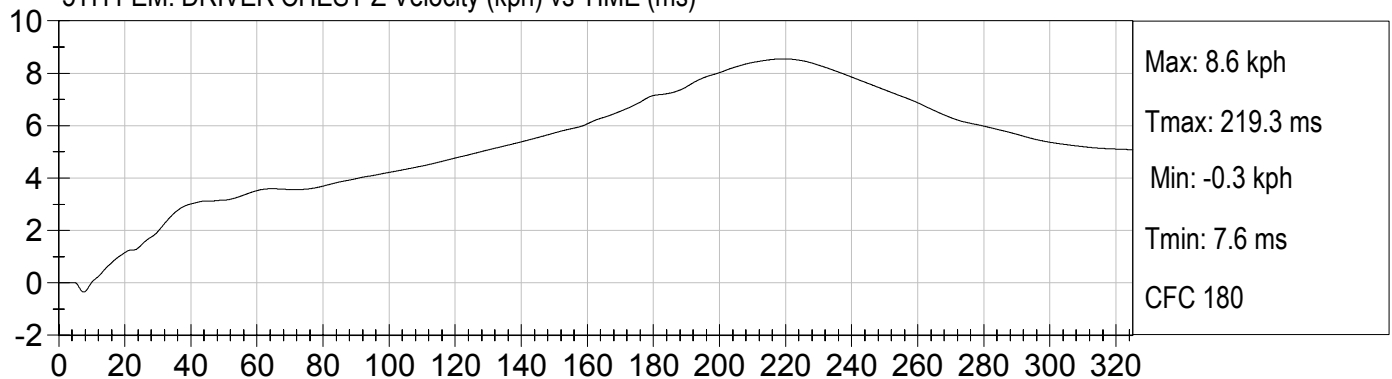
5TH FEM. DRIVER CHEST X Velocity (kph) vs TIME (ms)



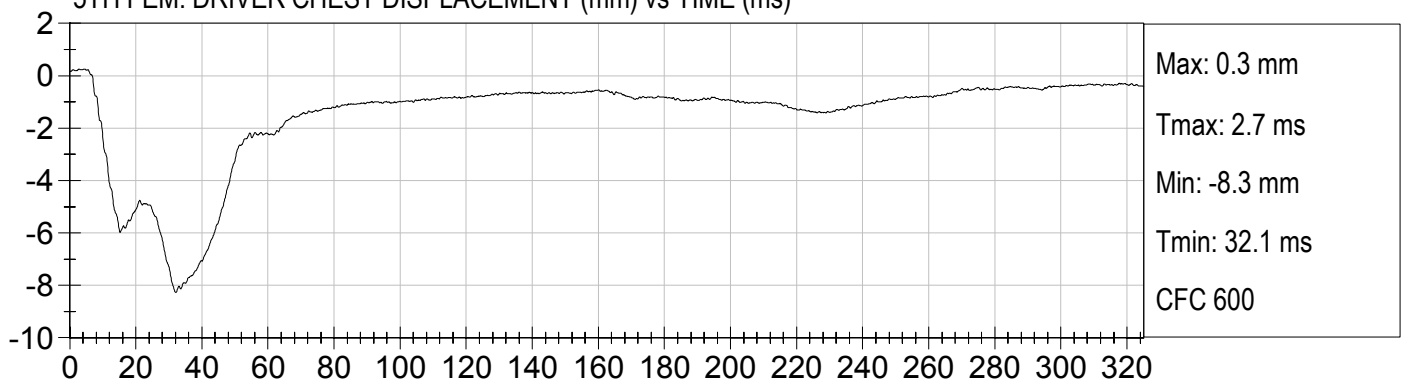
5TH FEM. DRIVER CHEST Y Velocity (kph) vs TIME (ms)

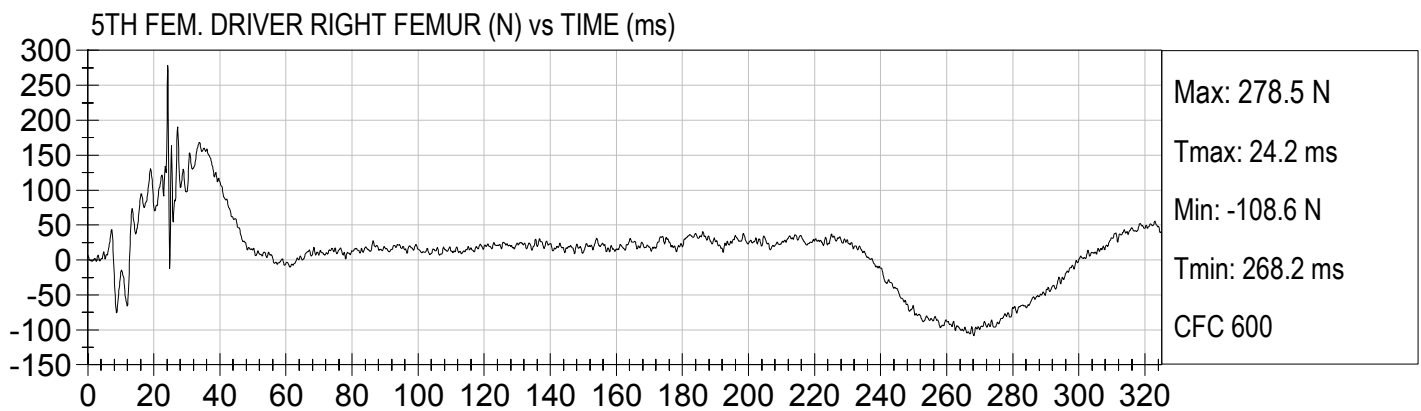
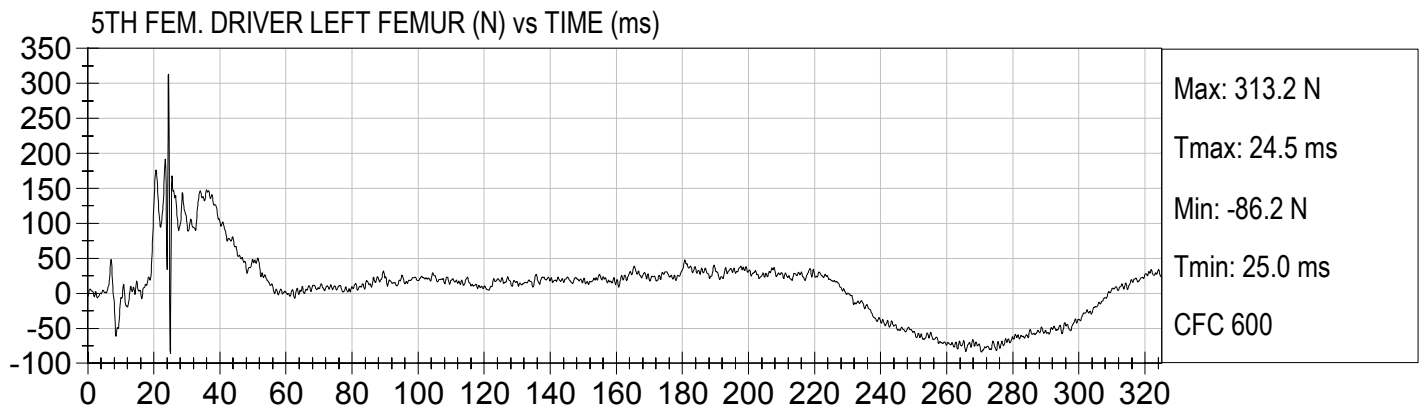


5TH FEM. DRIVER CHEST Z Velocity (kph) vs TIME (ms)



5TH FEM. DRIVER CHEST DISPLACEMENT (mm) vs TIME (ms)

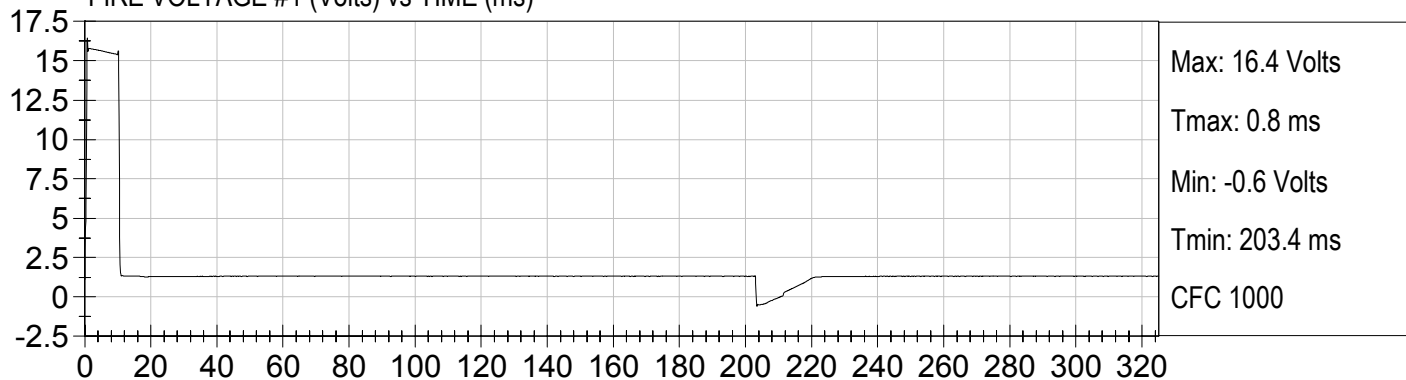




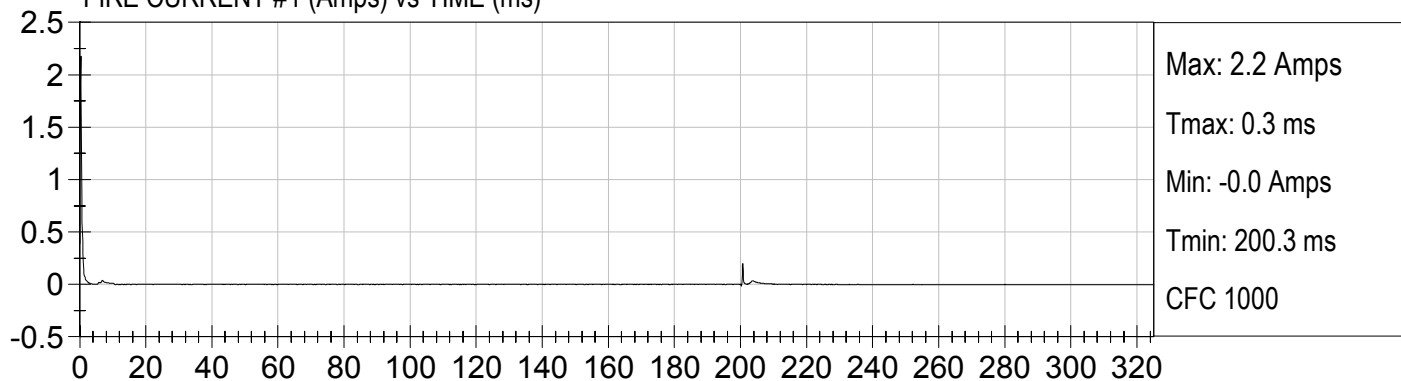




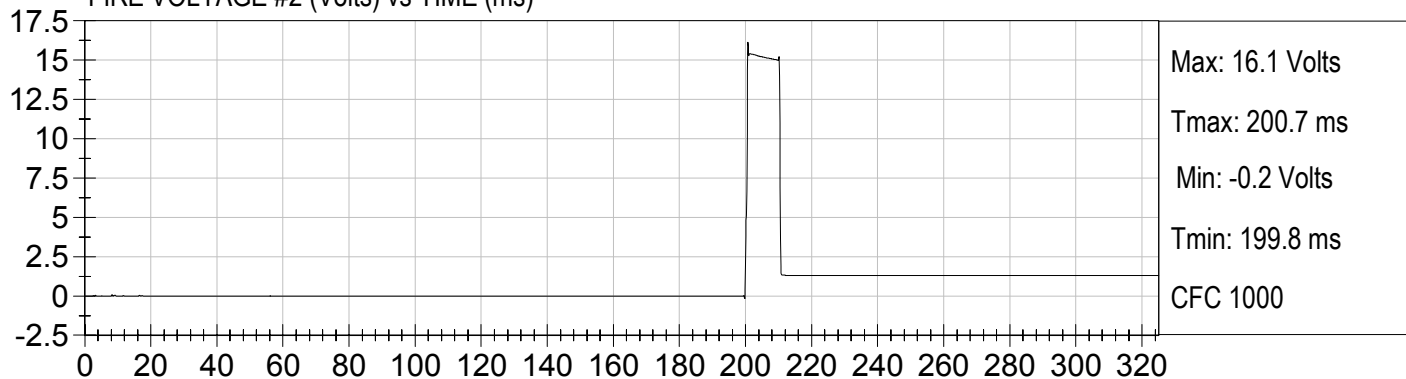
FIRE VOLTAGE #1 (Volts) vs TIME (ms)



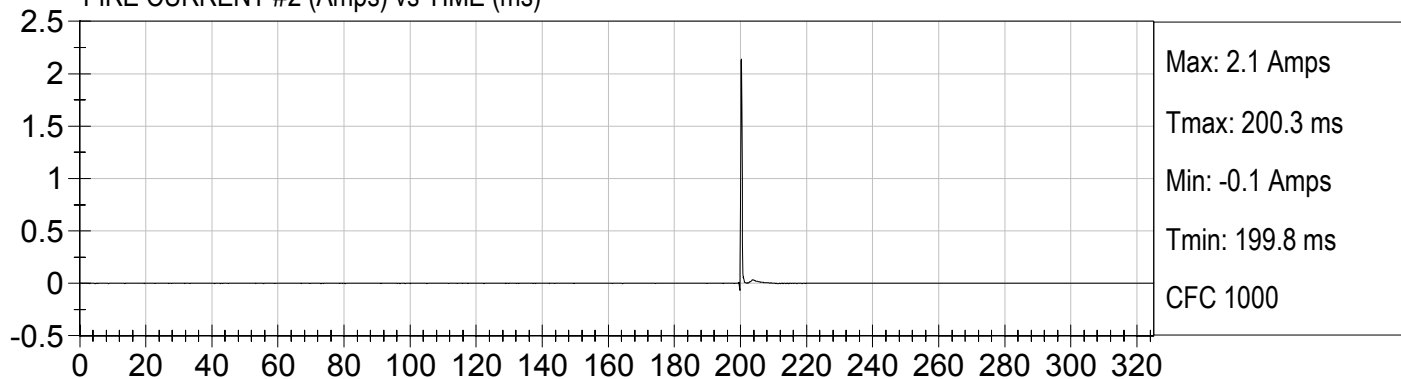
FIRE CURRENT #1 (Amps) vs TIME (ms)

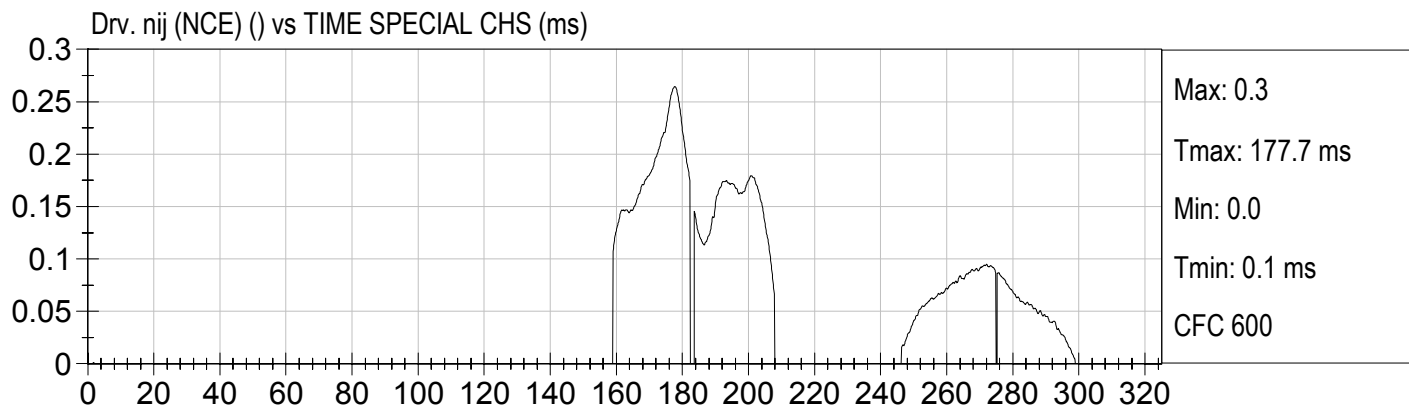
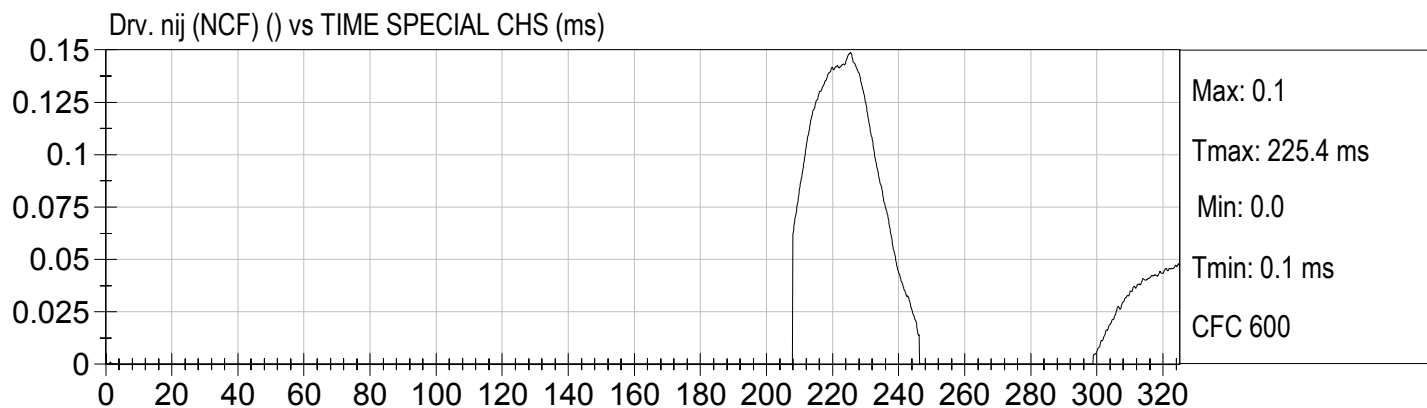
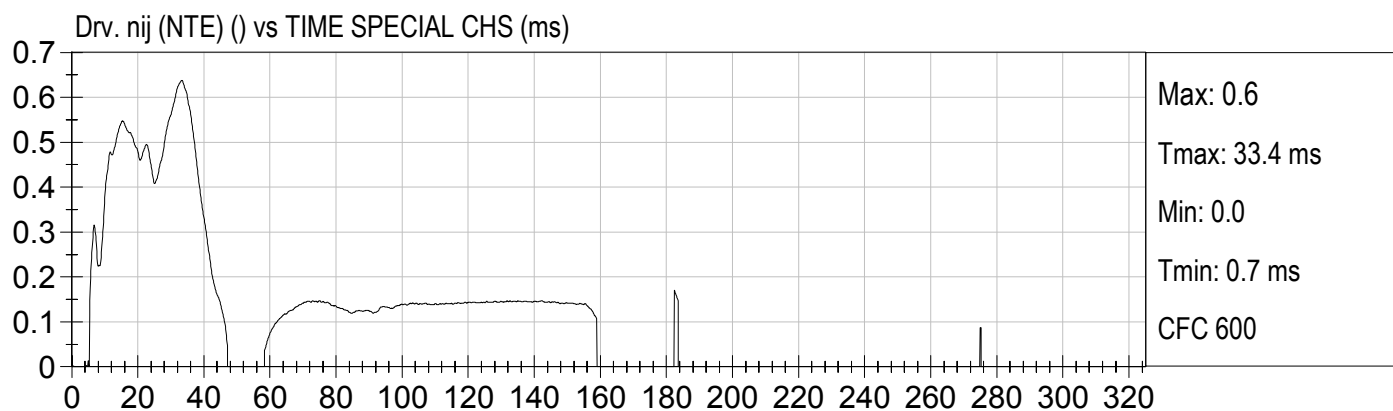
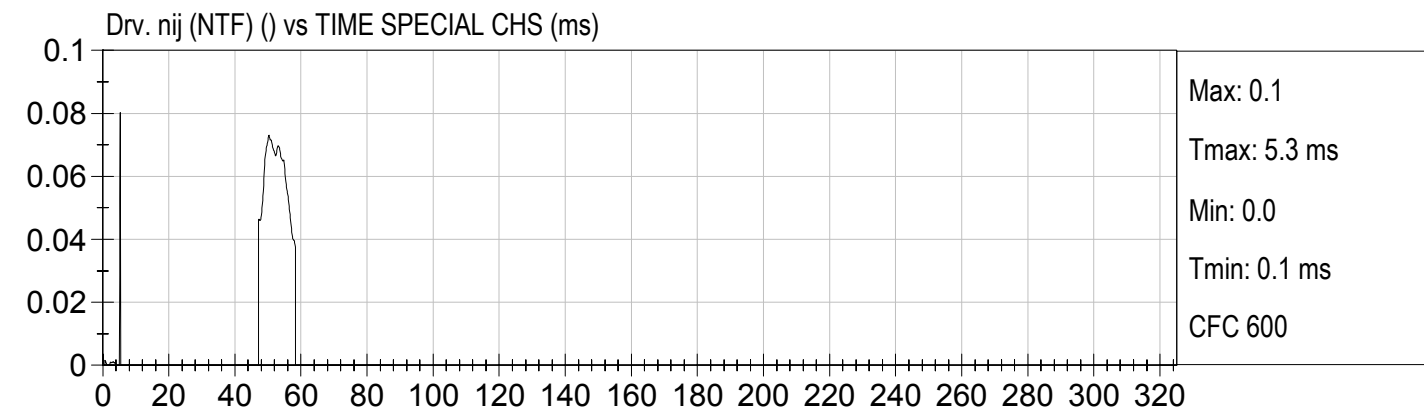


FIRE VOLTAGE #2 (Volts) vs TIME (ms)



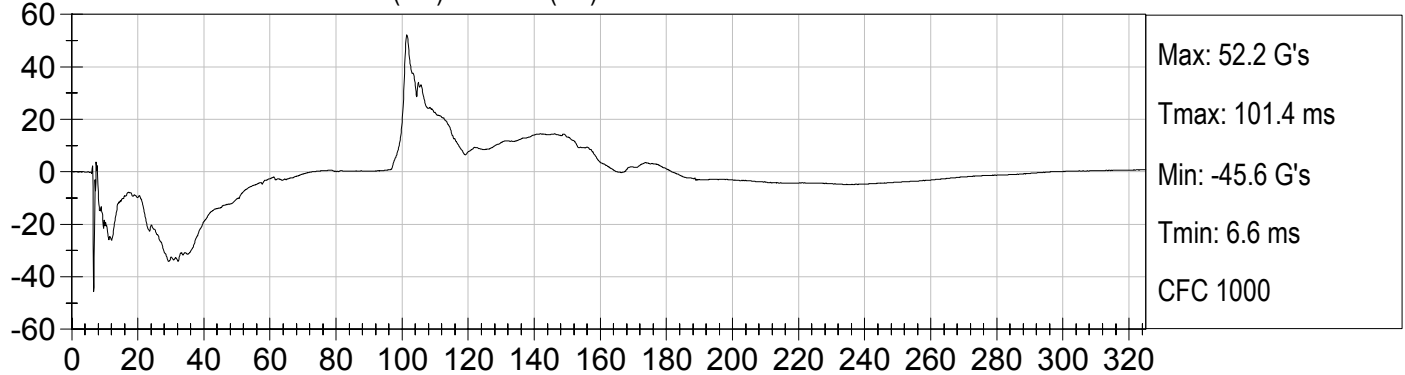
FIRE CURRENT #2 (Amps) vs TIME (ms)



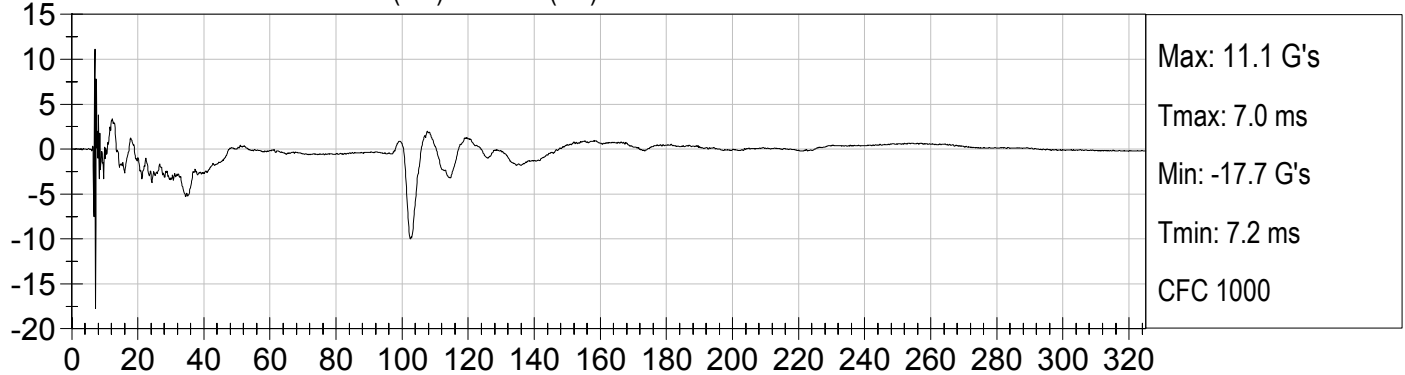




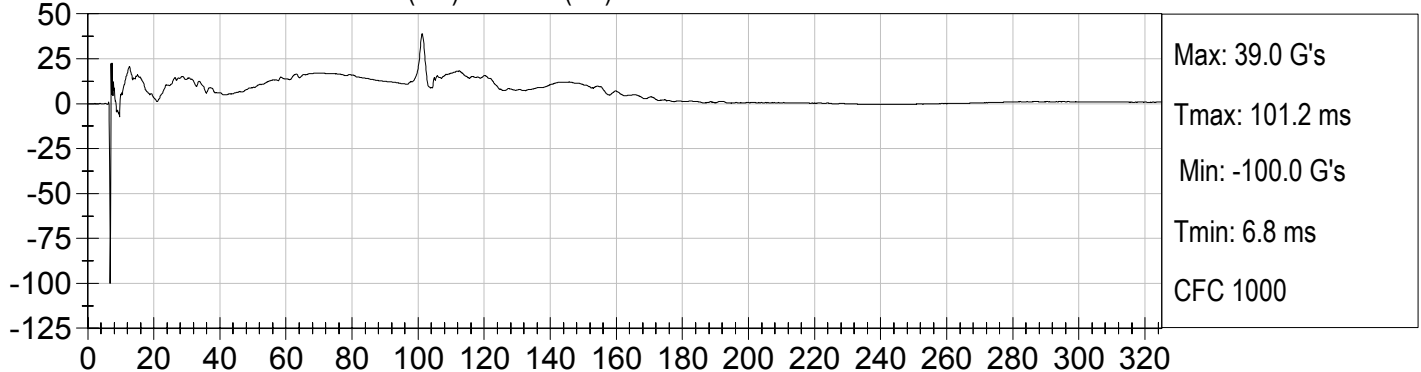
5TH FEM. DRIVER HEAD X (G's) vs TIME (ms)



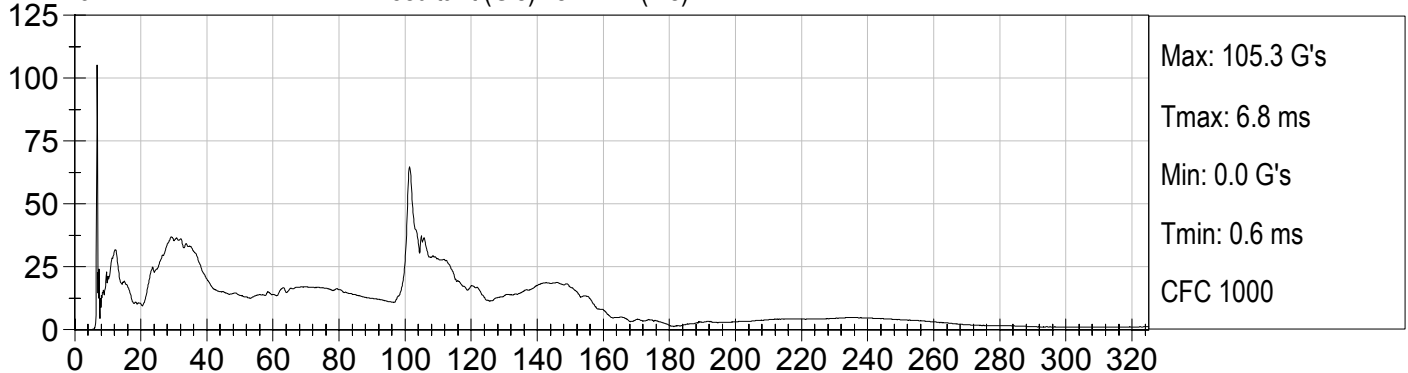
5TH FEM. DRIVER HEAD Y (G's) vs TIME (ms)

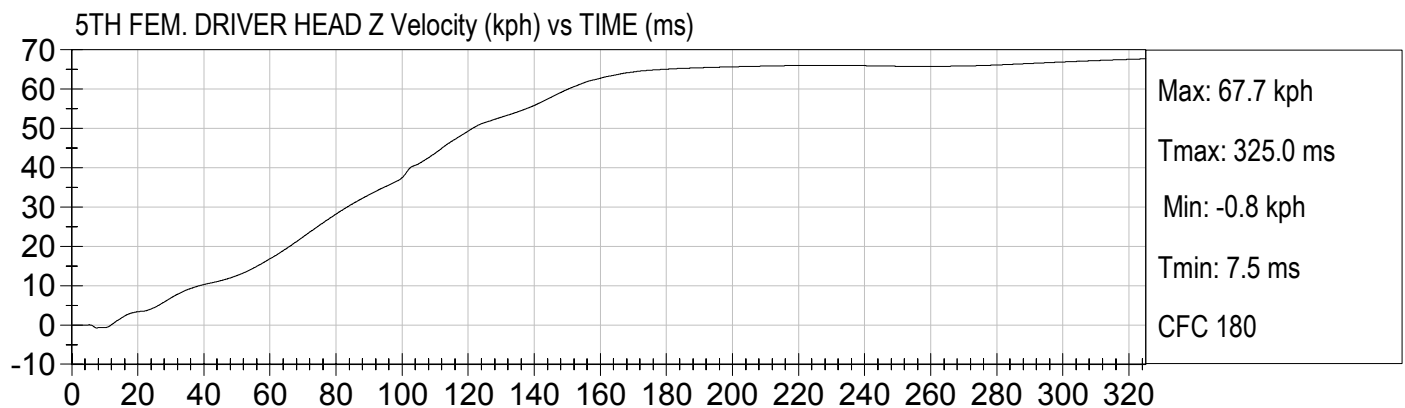
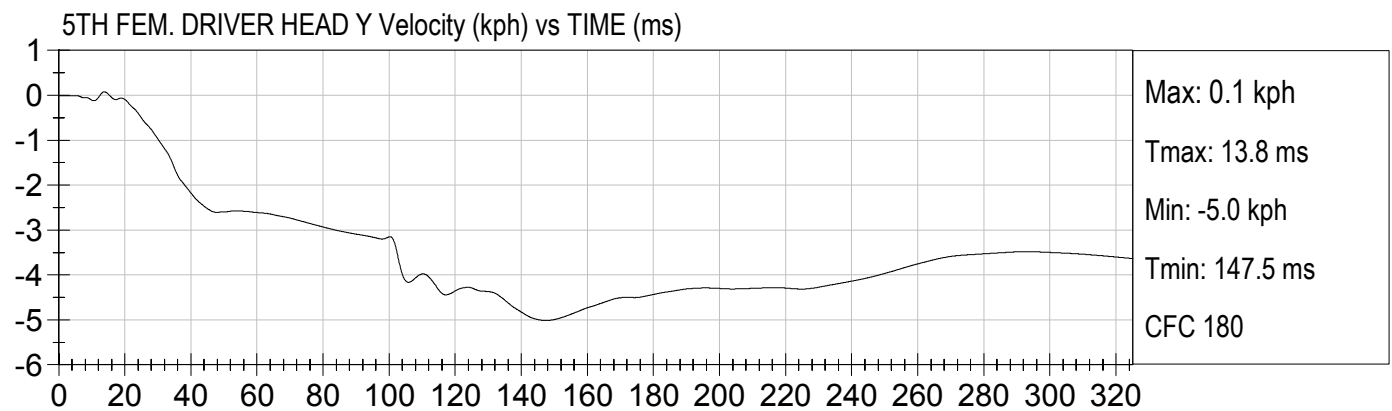
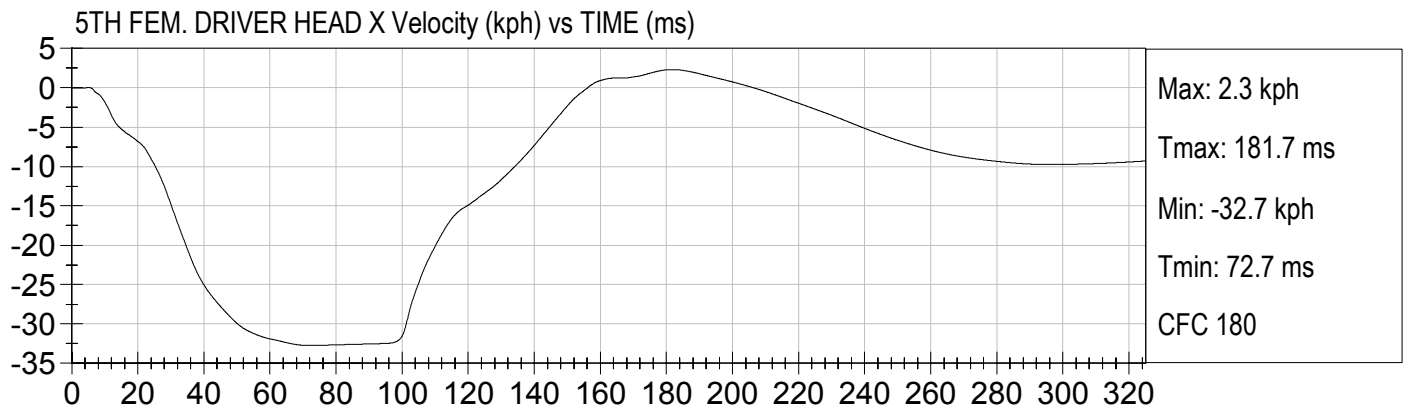


5TH FEM. DRIVER HEAD Z (G's) vs TIME (ms)



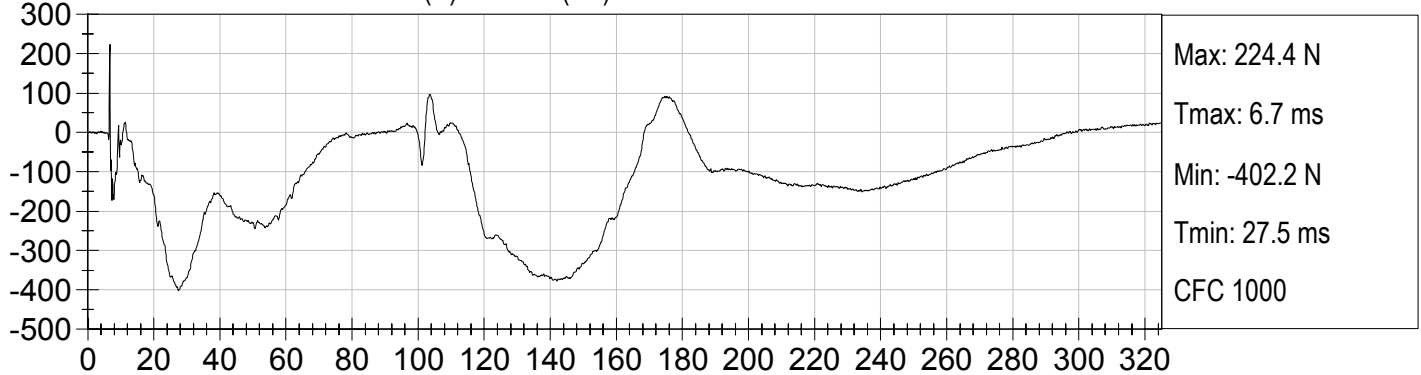
5TH FEM. DRIVER HEAD Resultant (G's) vs TIME (ms)



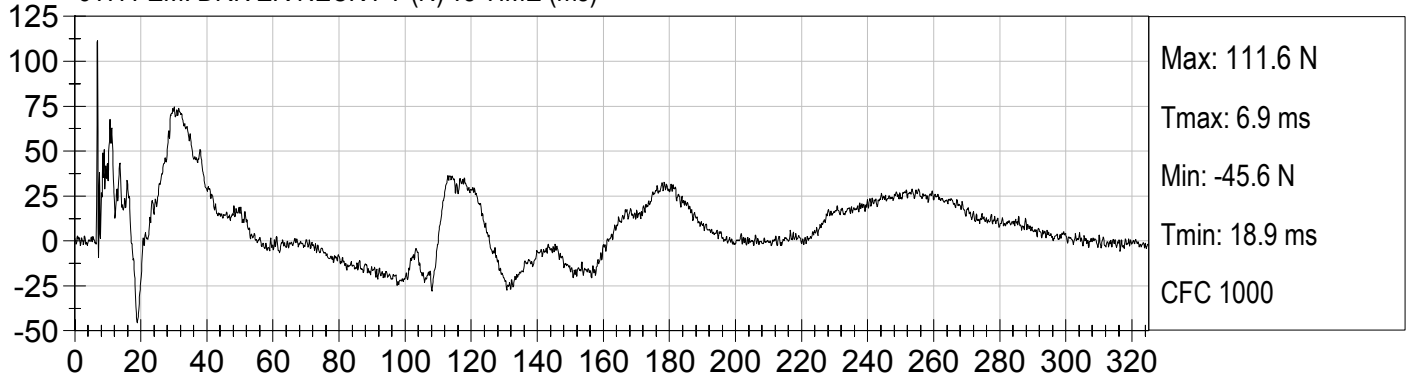




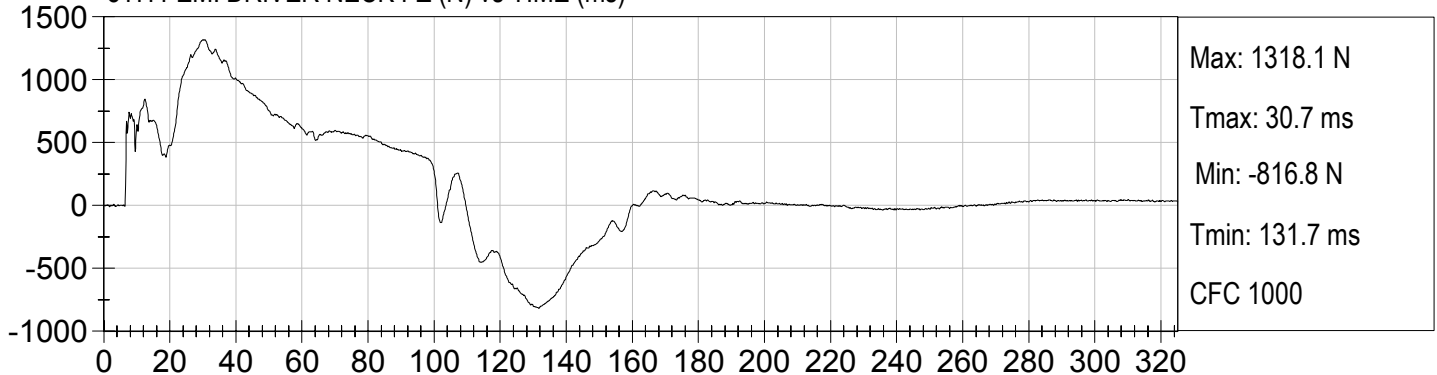
5TH FEM. DRIVER NECK FX (N) vs TIME (ms)



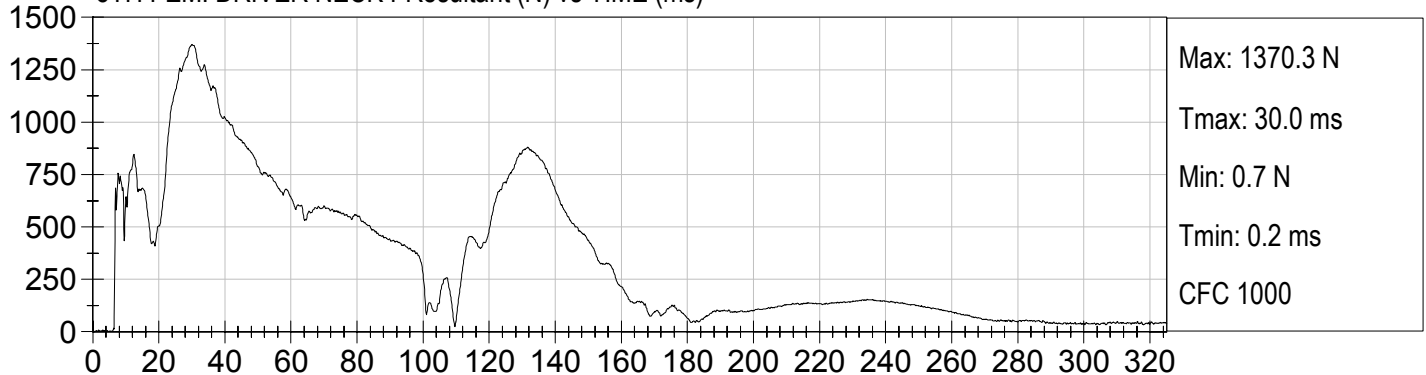
5TH FEM. DRIVER NECK FY (N) vs TIME (ms)



5TH FEM. DRIVER NECK FZ (N) vs TIME (ms)

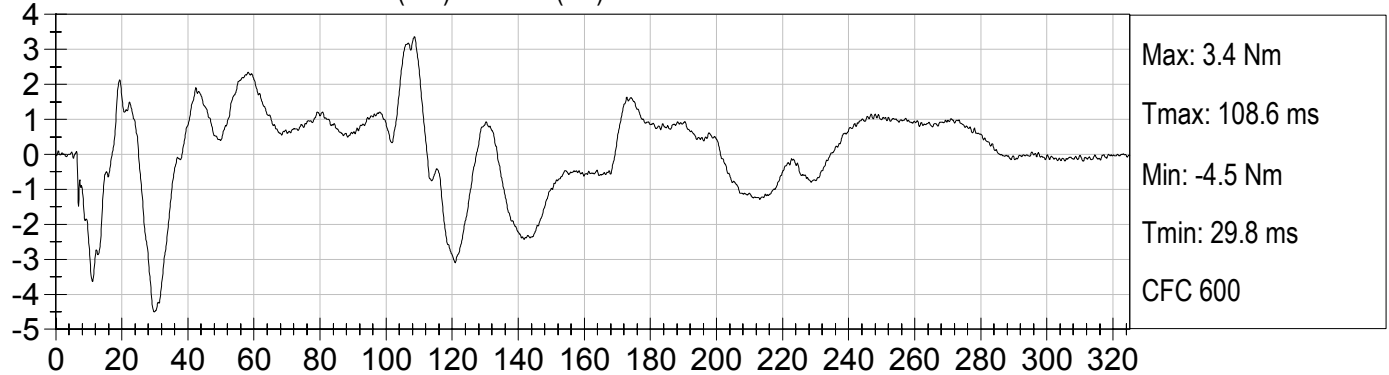


5TH FEM. DRIVER NECK FResultant (N) vs TIME (ms)

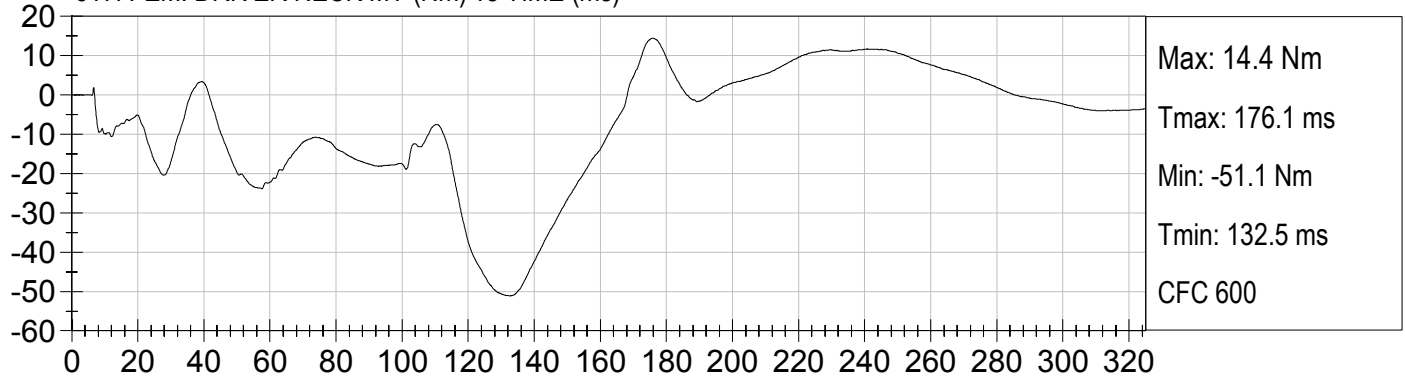




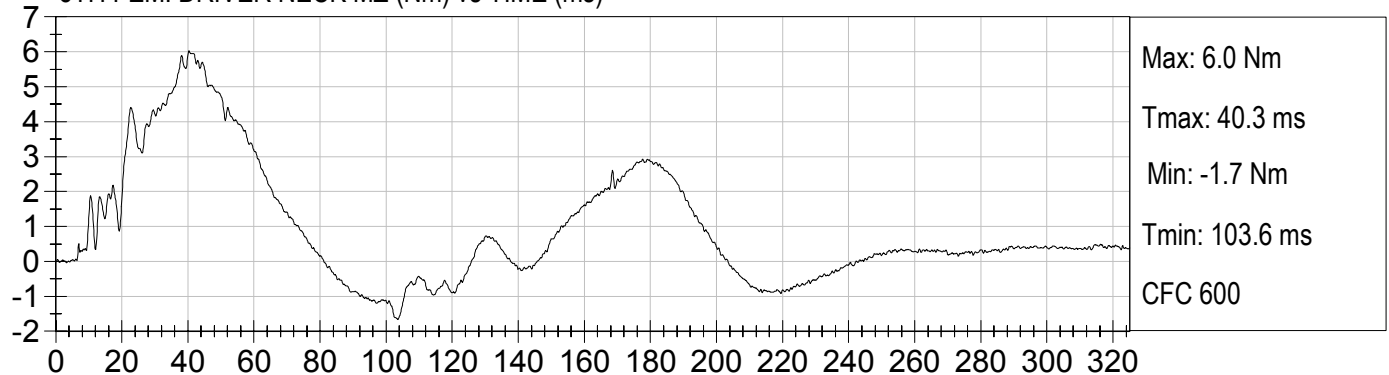
5TH FEM. DRIVER NECK MX (Nm) vs TIME (ms)



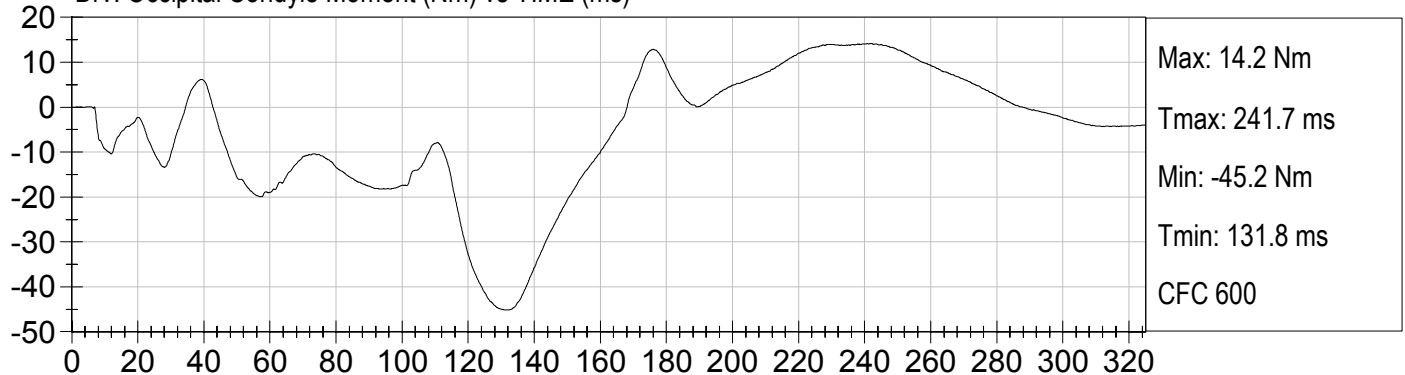
5TH FEM. DRIVER NECK MY (Nm) vs TIME (ms)

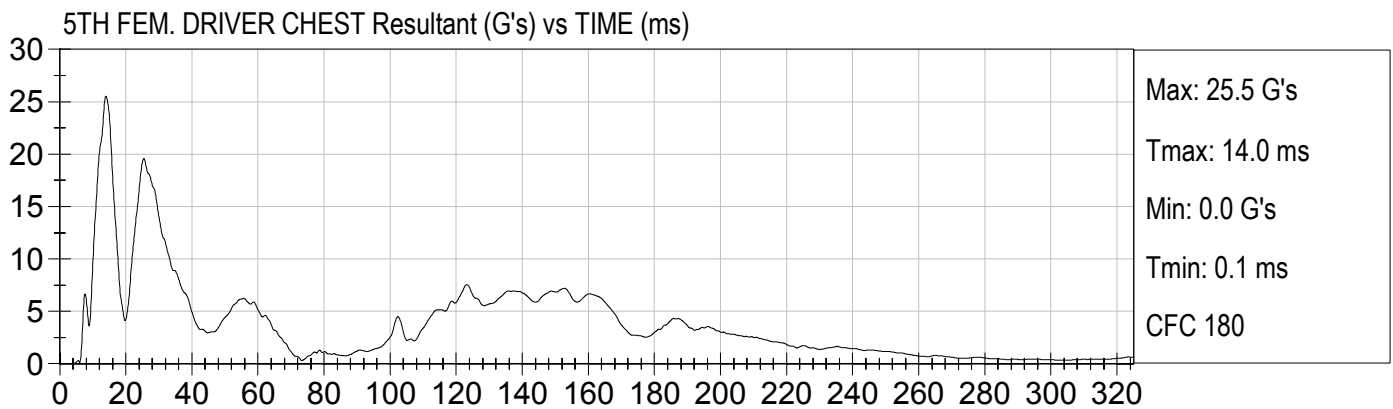
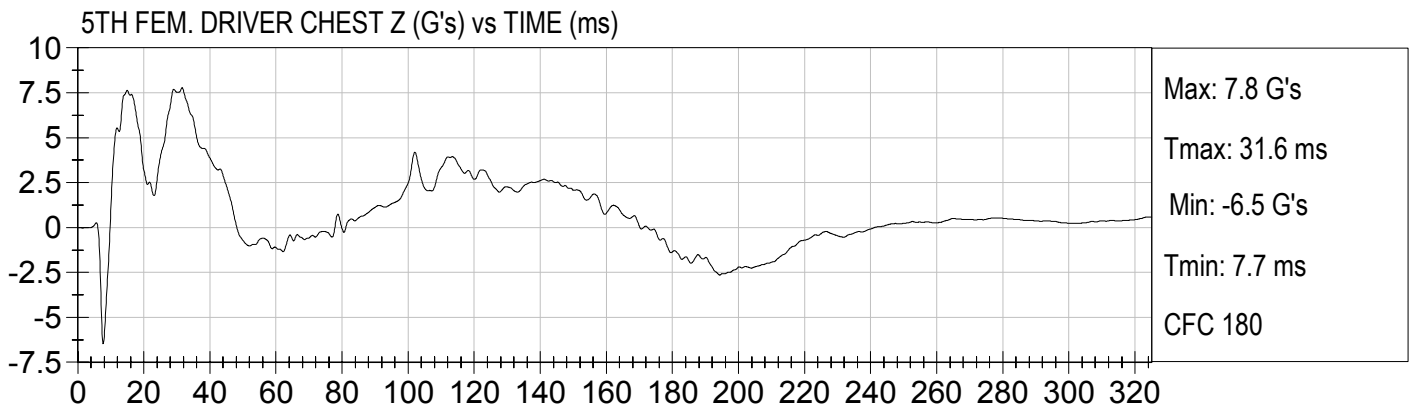
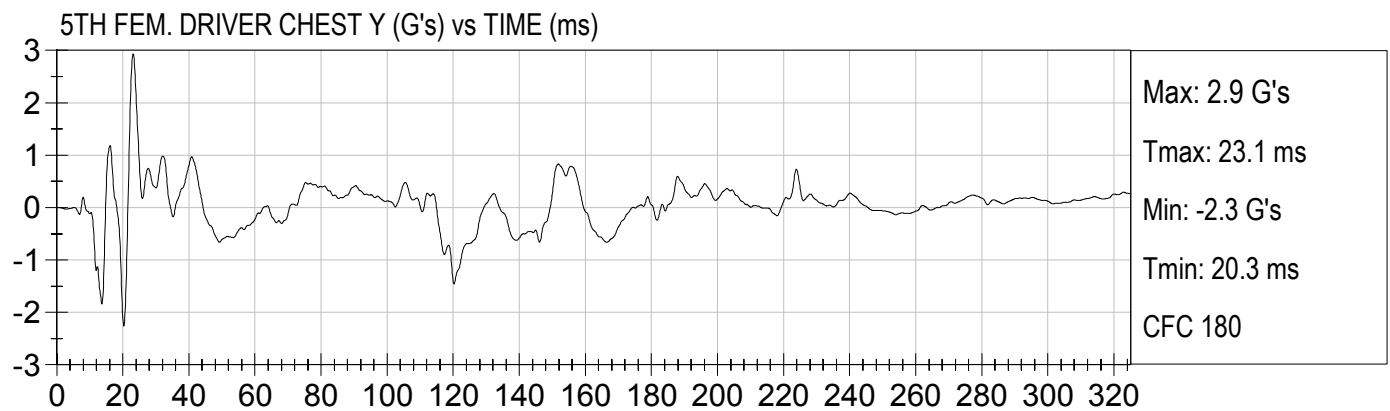
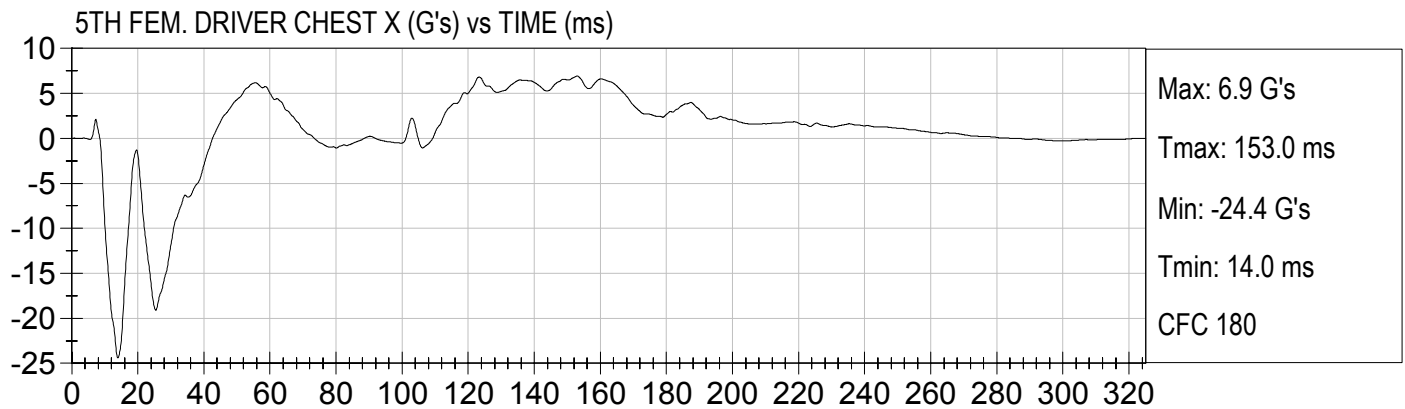


5TH FEM. DRIVER NECK MZ (Nm) vs TIME (ms)



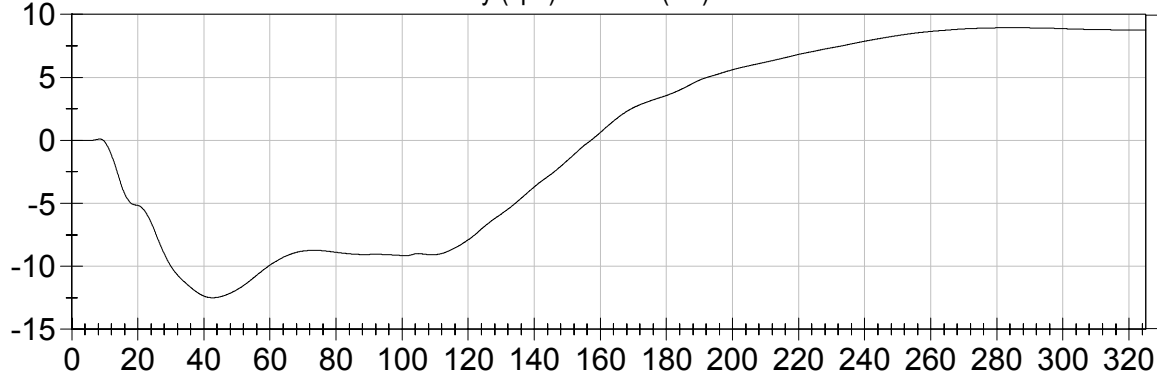
Drv. Occipital Condyle Moment (Nm) vs TIME (ms)



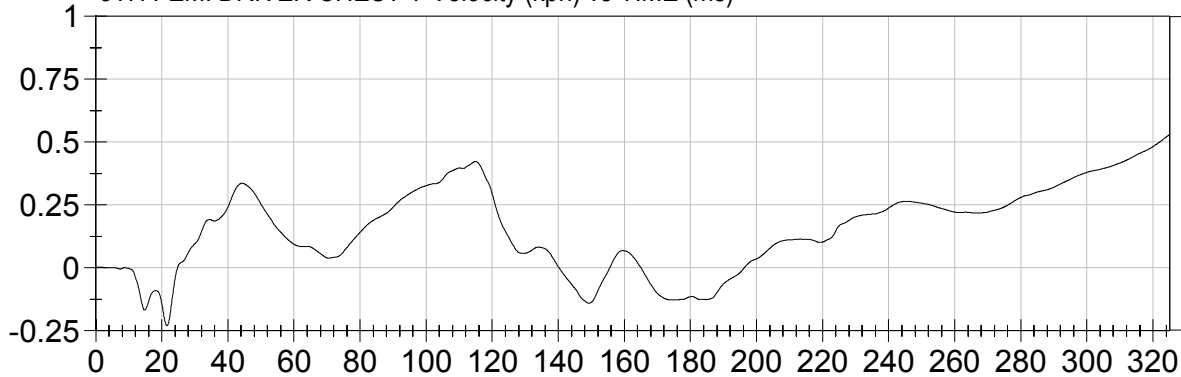




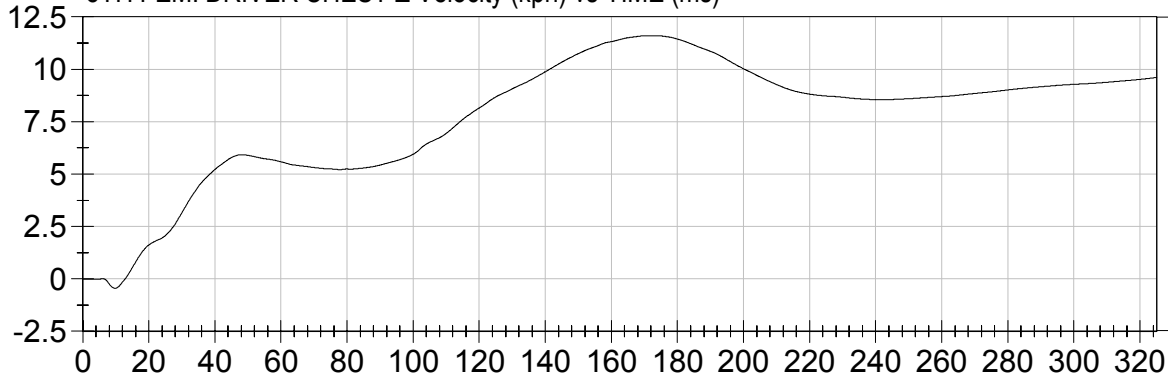
5TH FEM. DRIVER CHEST X Velocity (kph) vs TIME (ms)



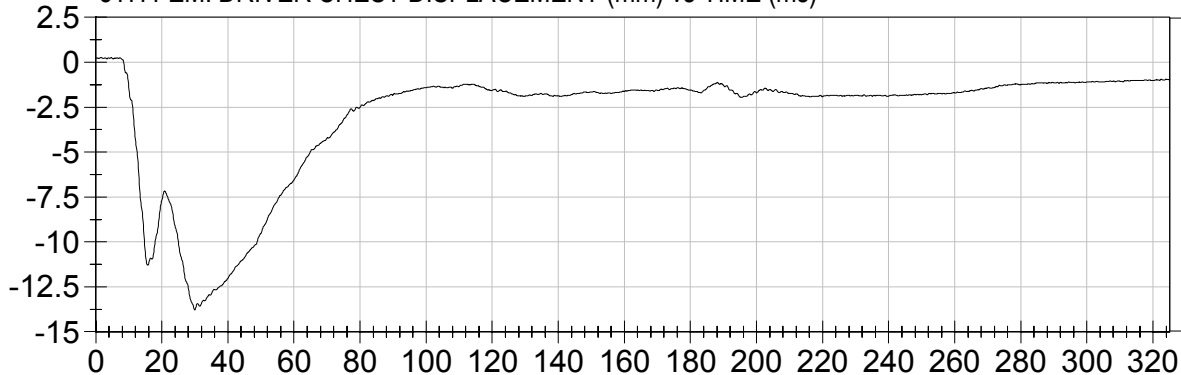
5TH FEM. DRIVER CHEST Y Velocity (kph) vs TIME (ms)



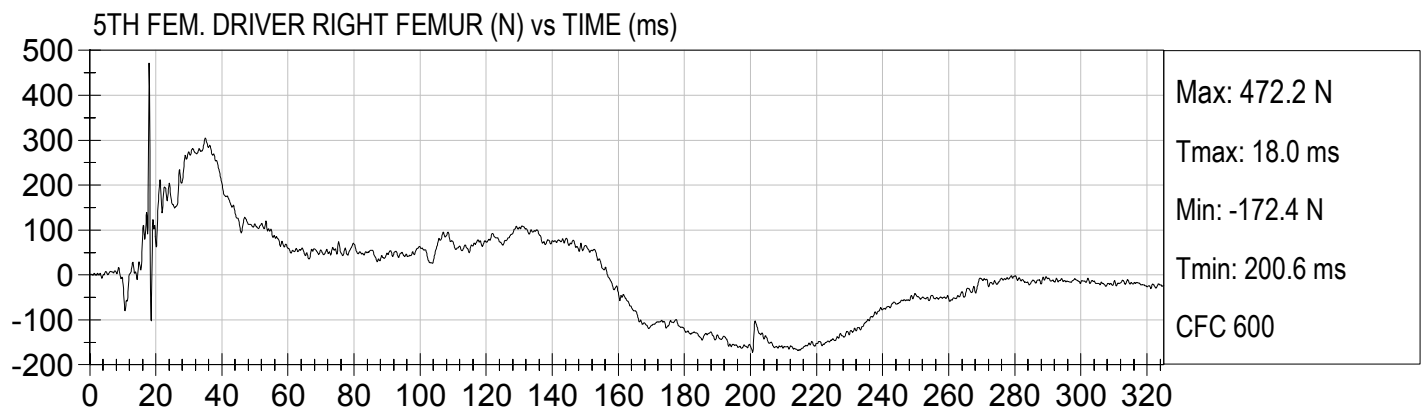
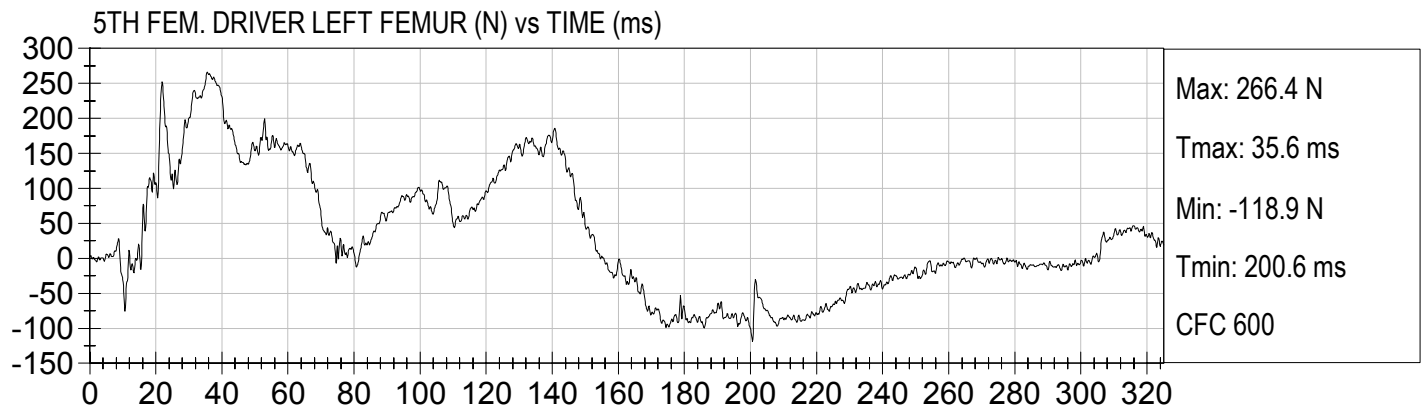
5TH FEM. DRIVER CHEST Z Velocity (kph) vs TIME (ms)



5TH FEM. DRIVER CHEST DISPLACEMENT (mm) vs TIME (ms)

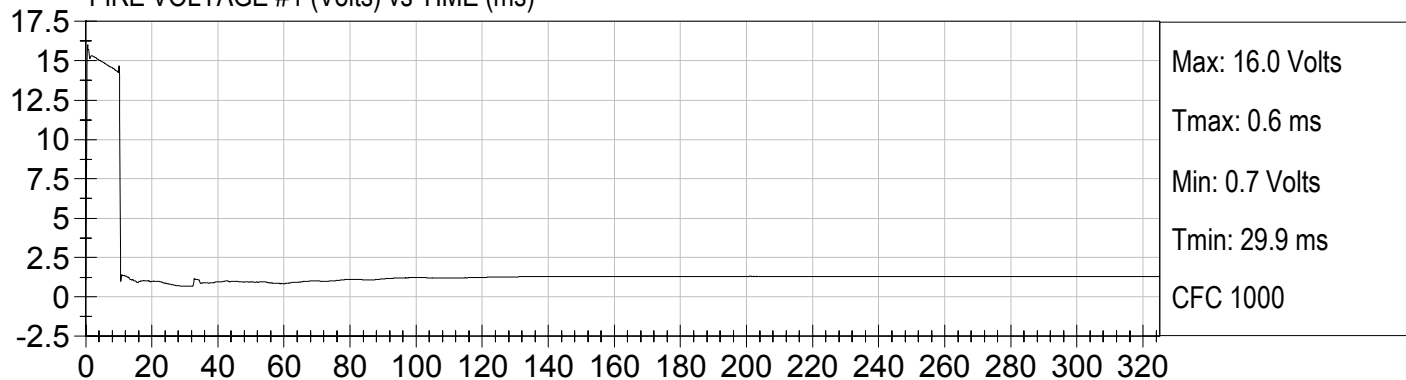




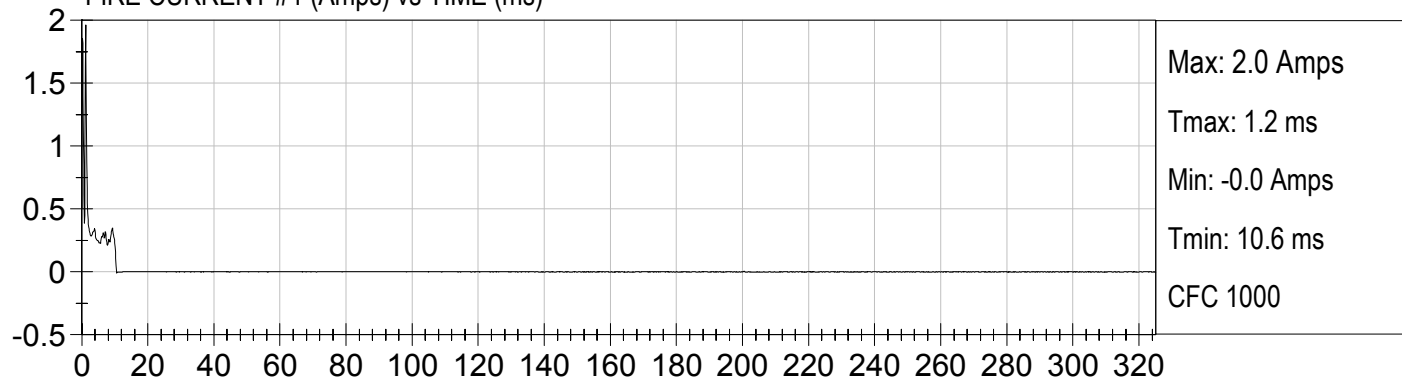




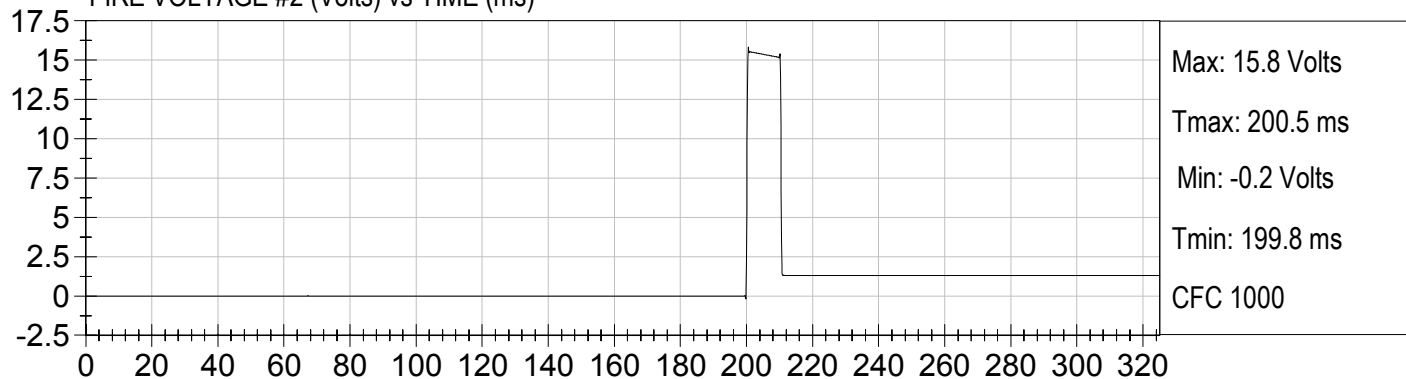
FIRE VOLTAGE #1 (Volts) vs TIME (ms)



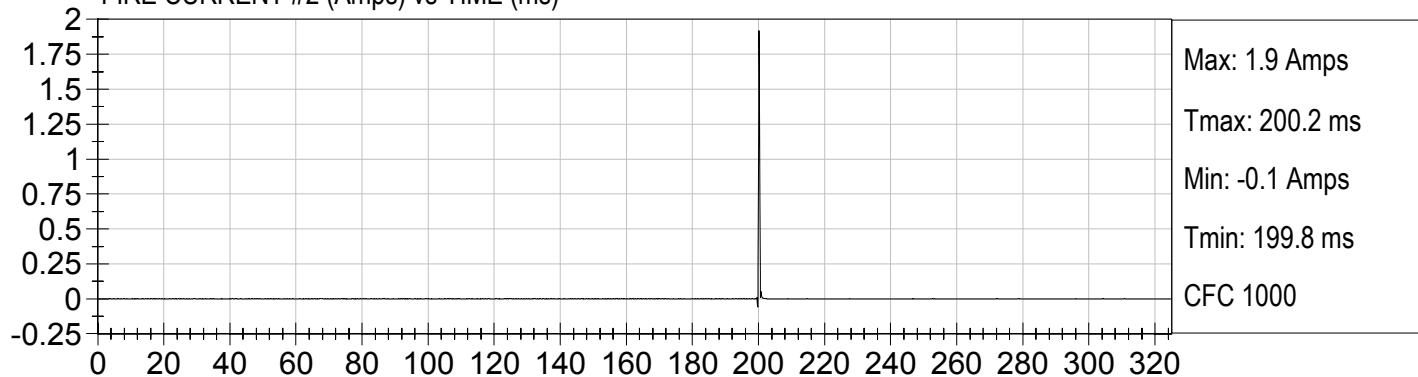
FIRE CURRENT #1 (Amps) vs TIME (ms)



FIRE VOLTAGE #2 (Volts) vs TIME (ms)

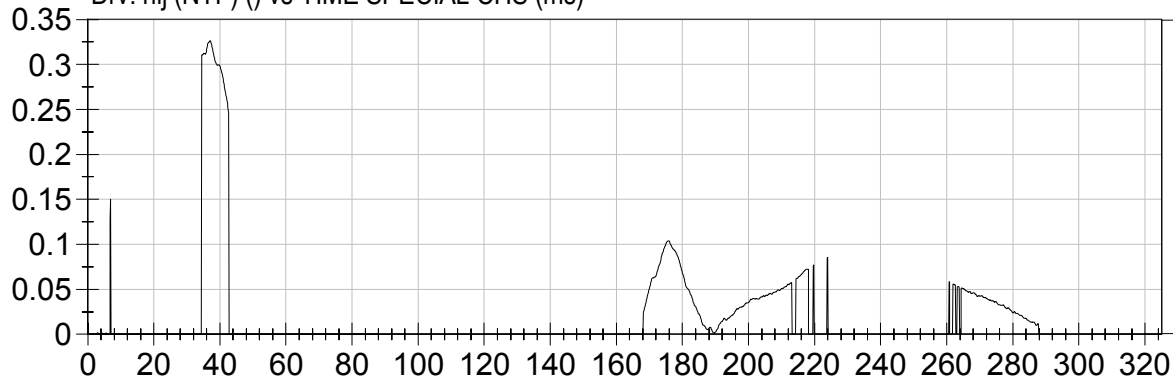


FIRE CURRENT #2 (Amps) vs TIME (ms)

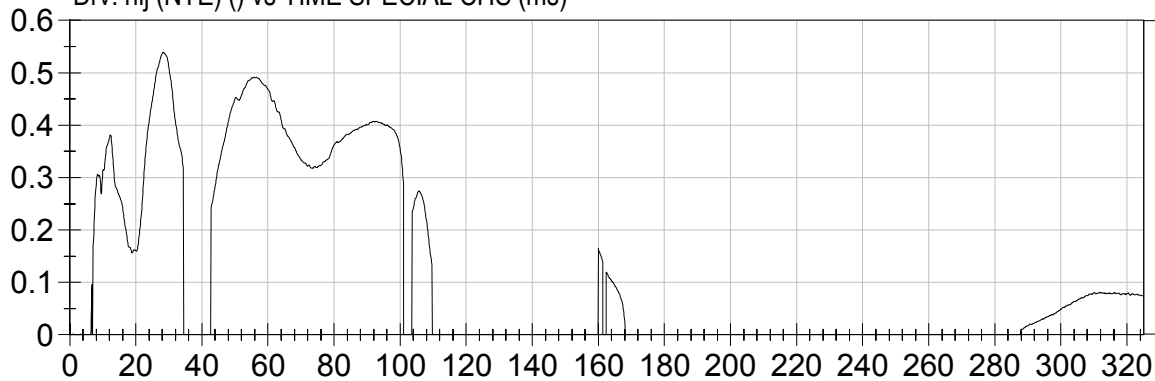




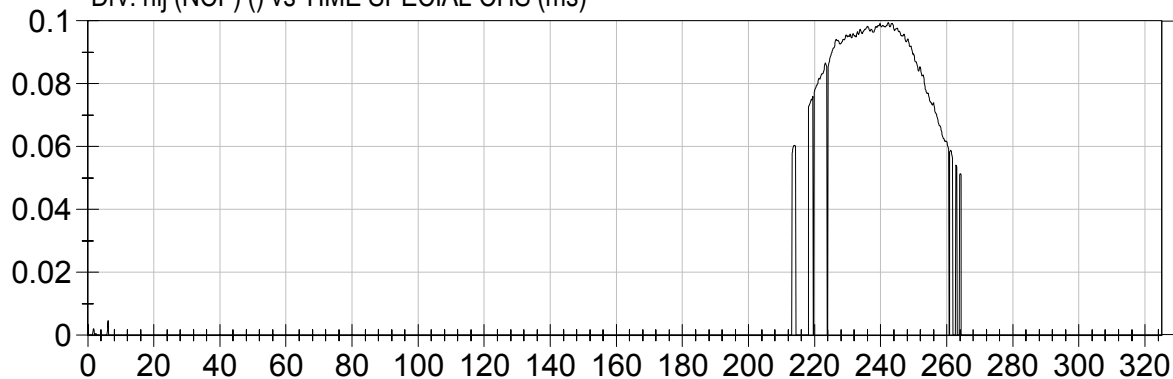
Drv. nij (NTF) () vs TIME SPECIAL CHS (ms)



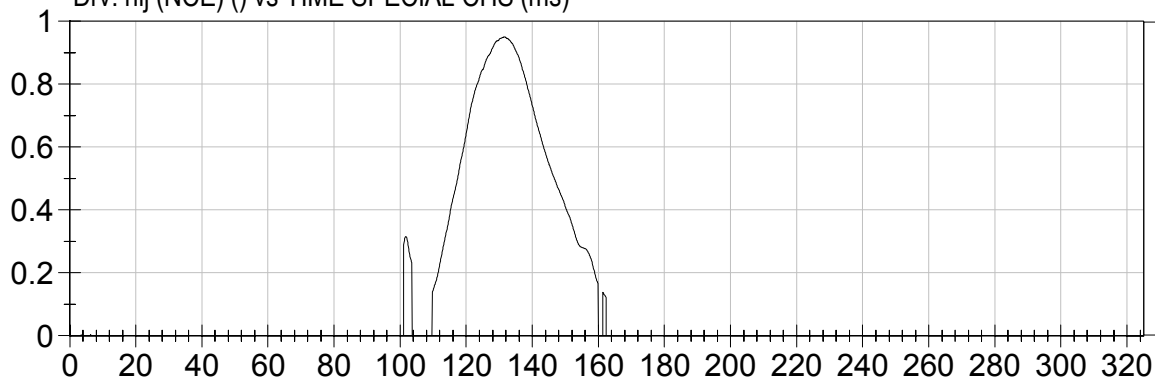
Drv. nij (NTE) () vs TIME SPECIAL CHS (ms)

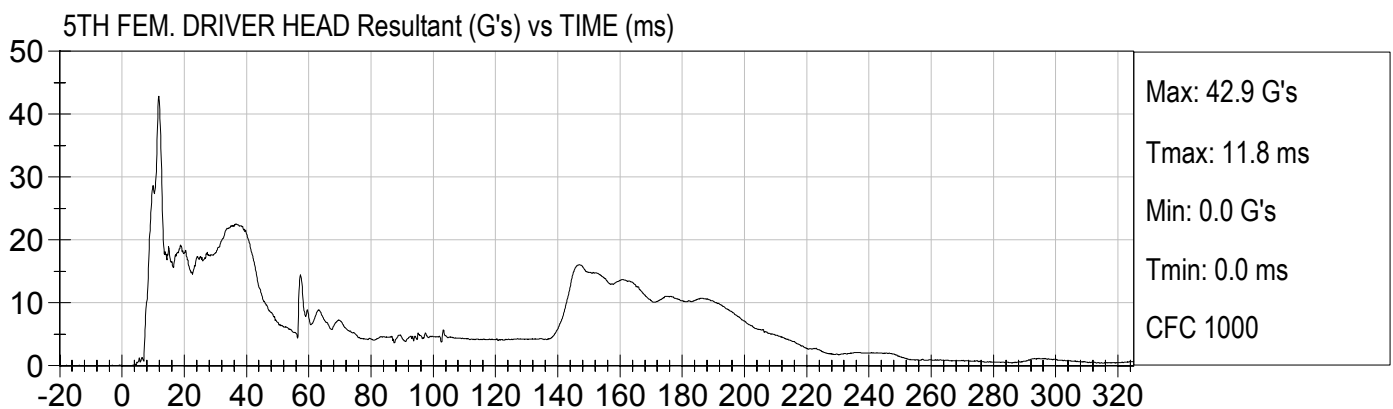
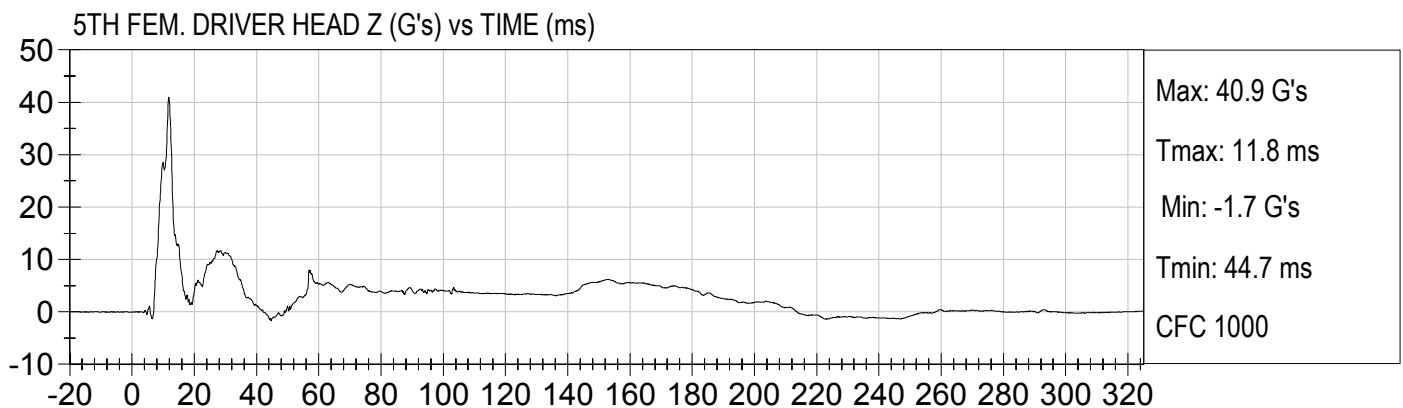
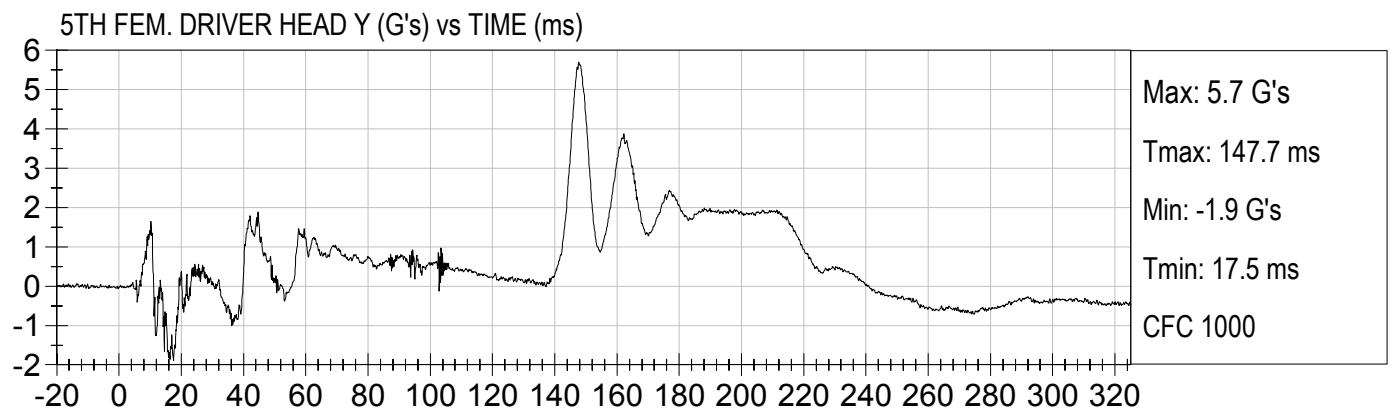
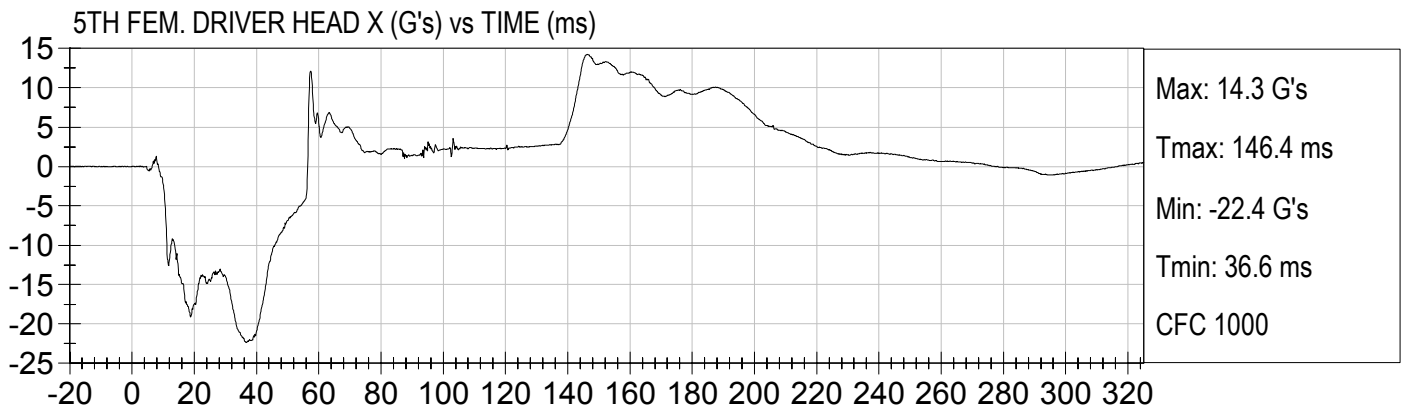


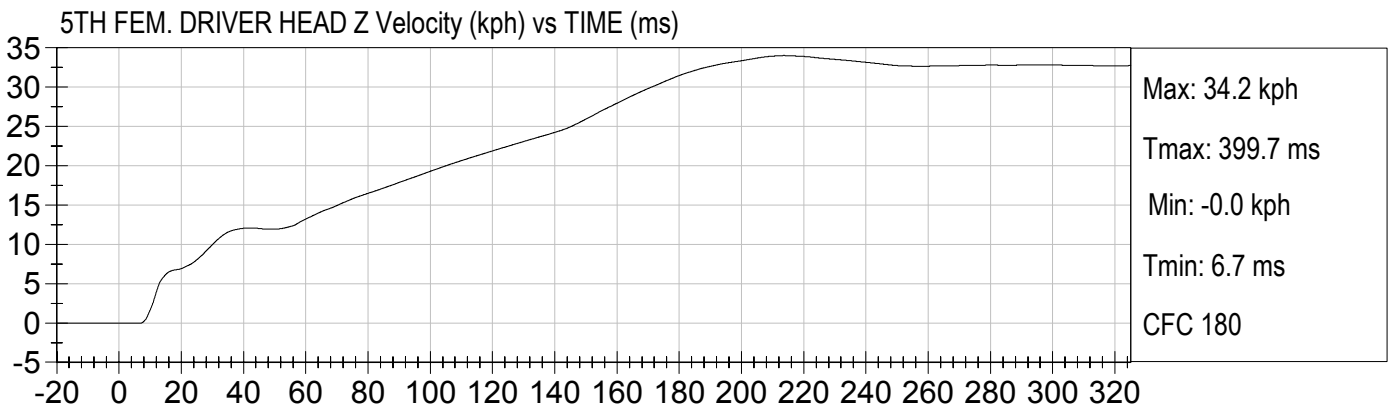
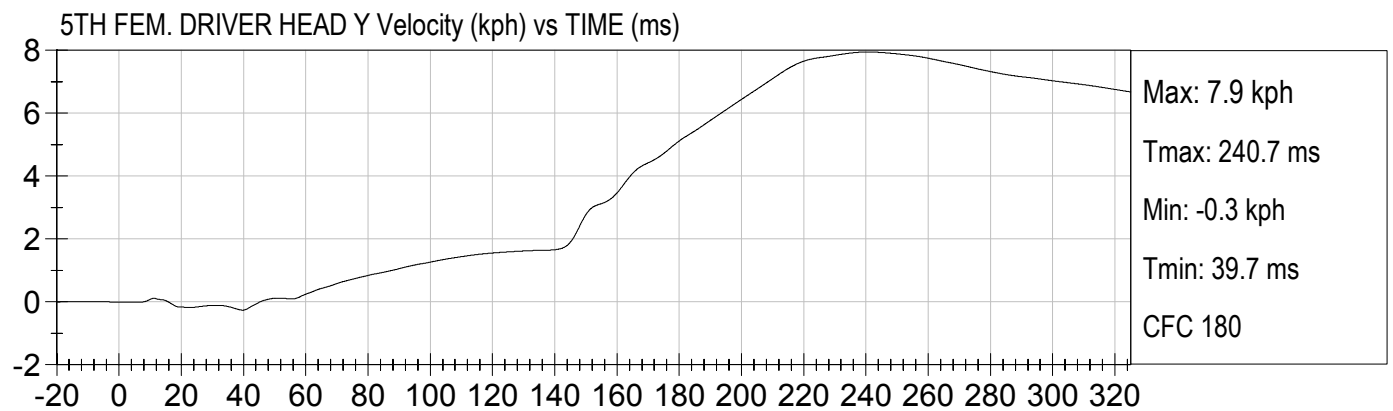
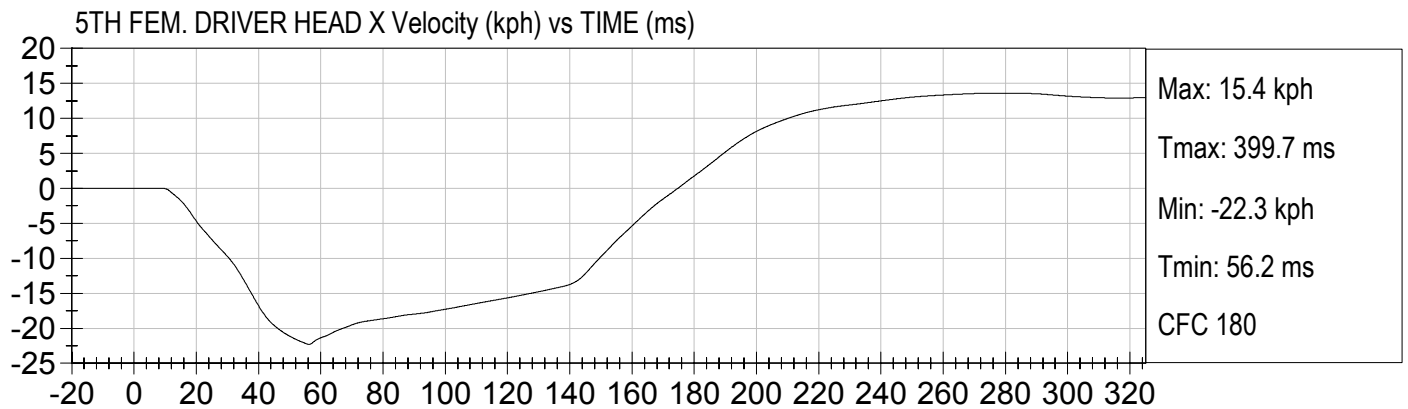
Drv. nij (NCF) () vs TIME SPECIAL CHS (ms)

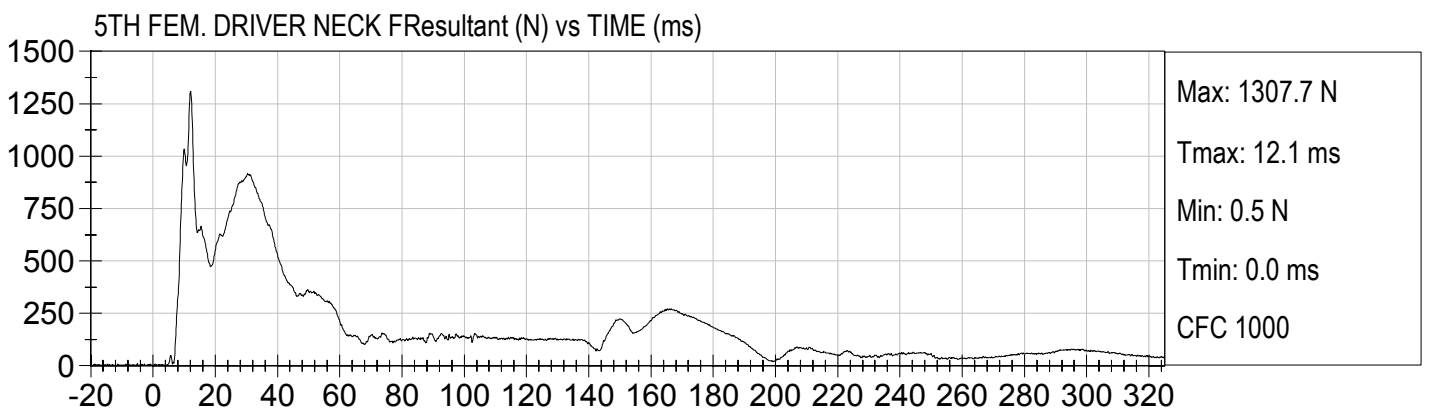
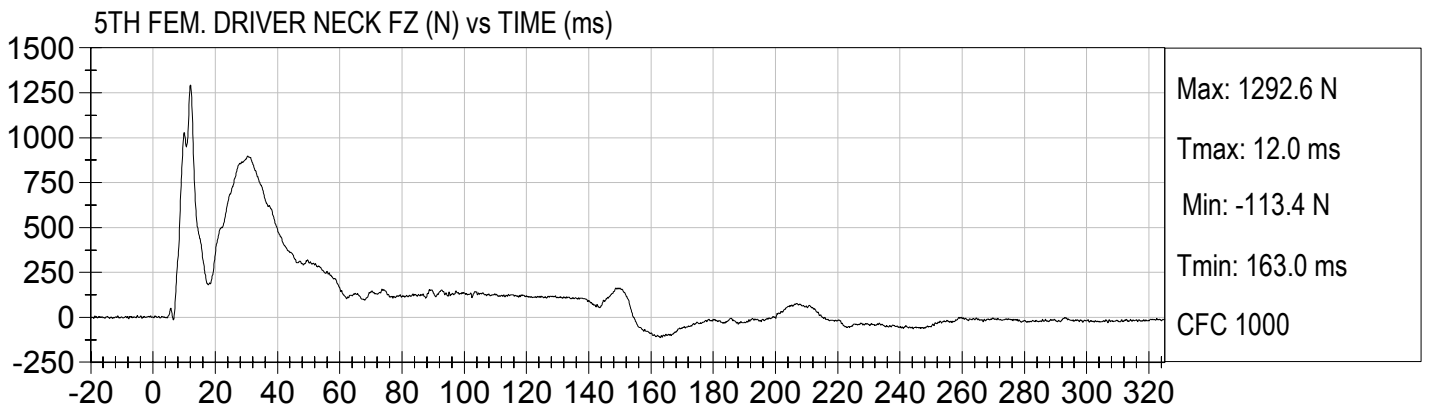
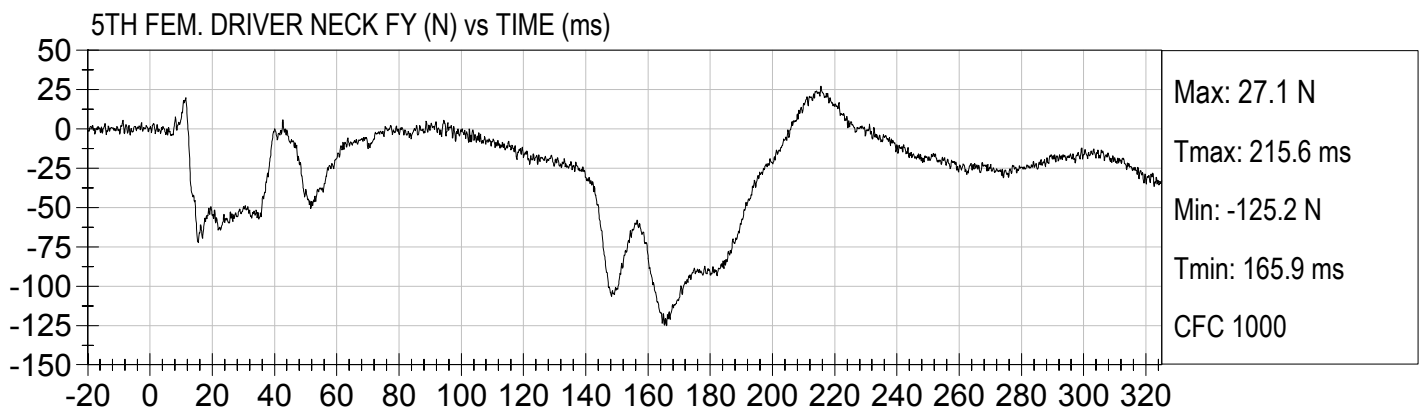
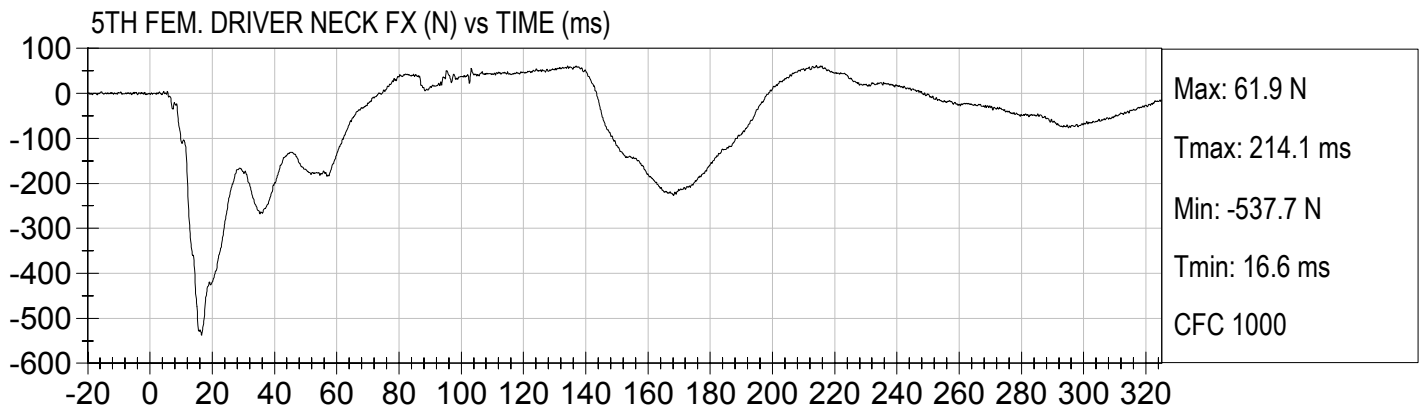


Drv. nij (NCE) () vs TIME SPECIAL CHS (ms)



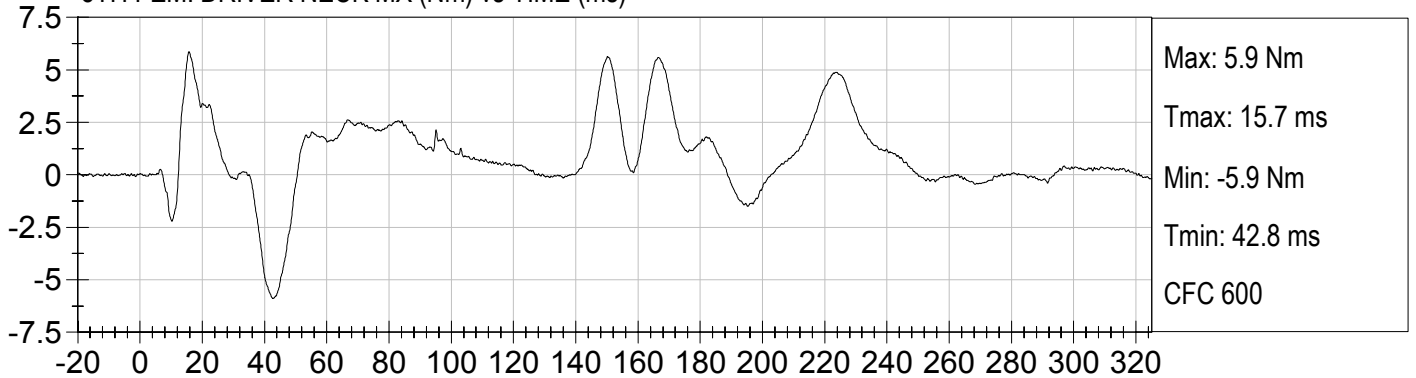




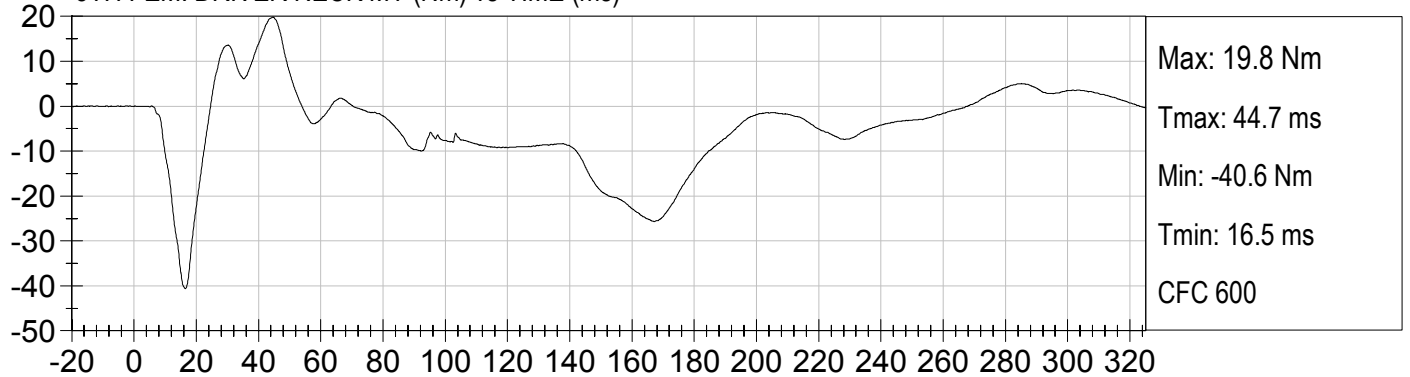




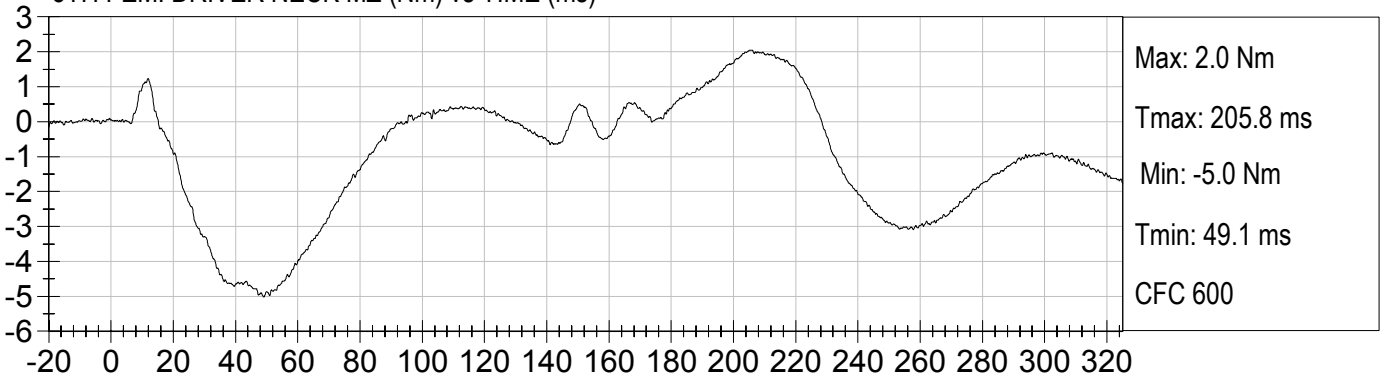
5TH FEM. DRIVER NECK MX (Nm) vs TIME (ms)



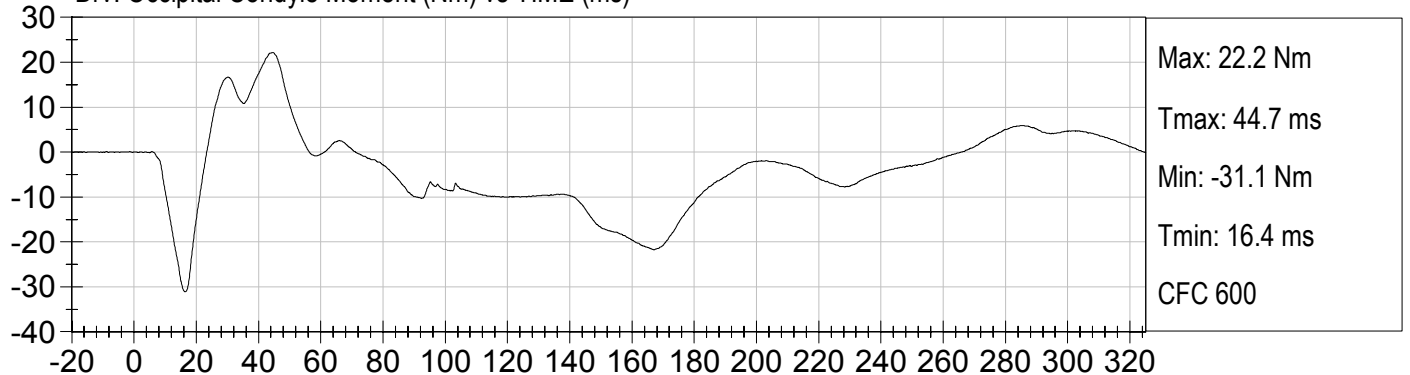
5TH FEM. DRIVER NECK MY (Nm) vs TIME (ms)

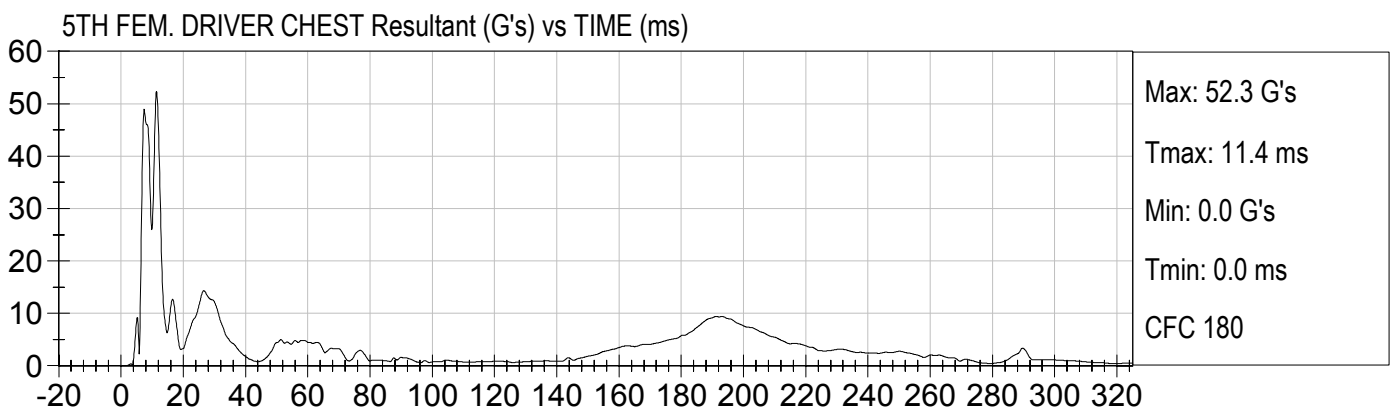
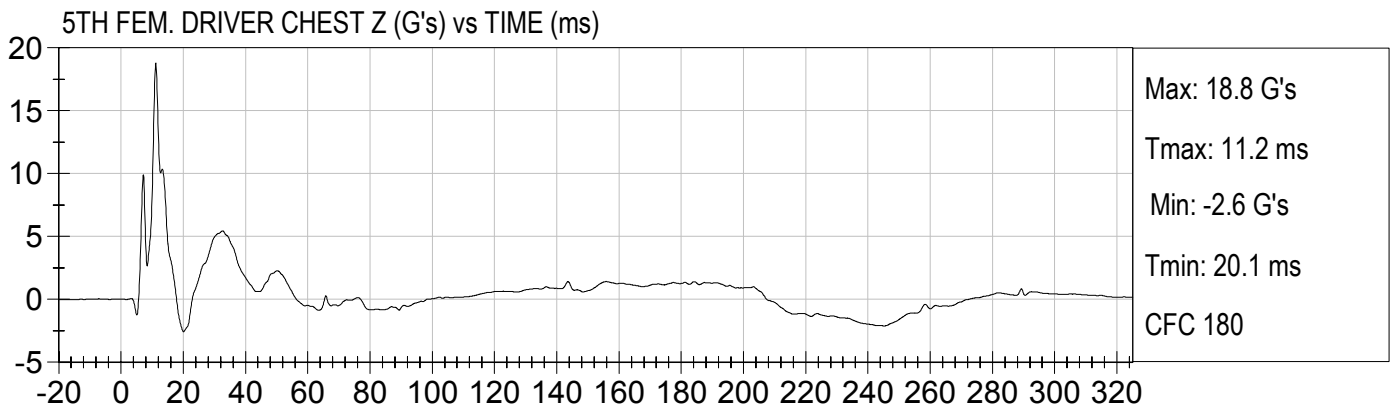
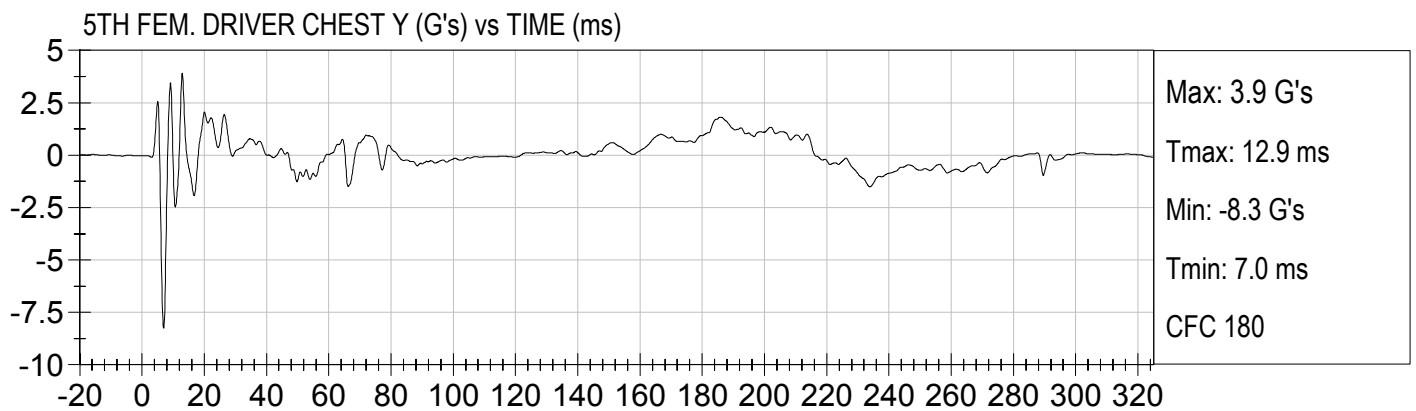
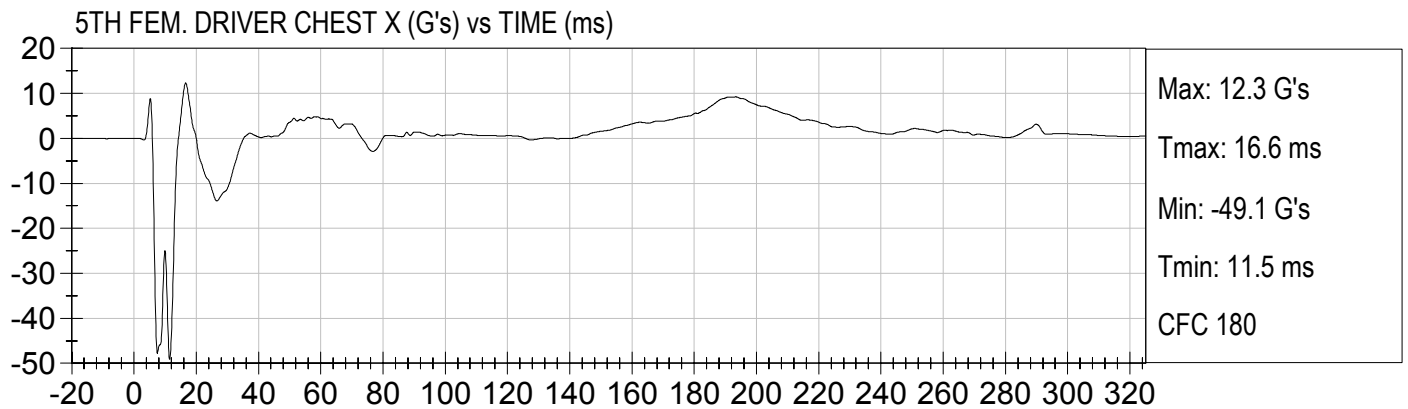


5TH FEM. DRIVER NECK MZ (Nm) vs TIME (ms)

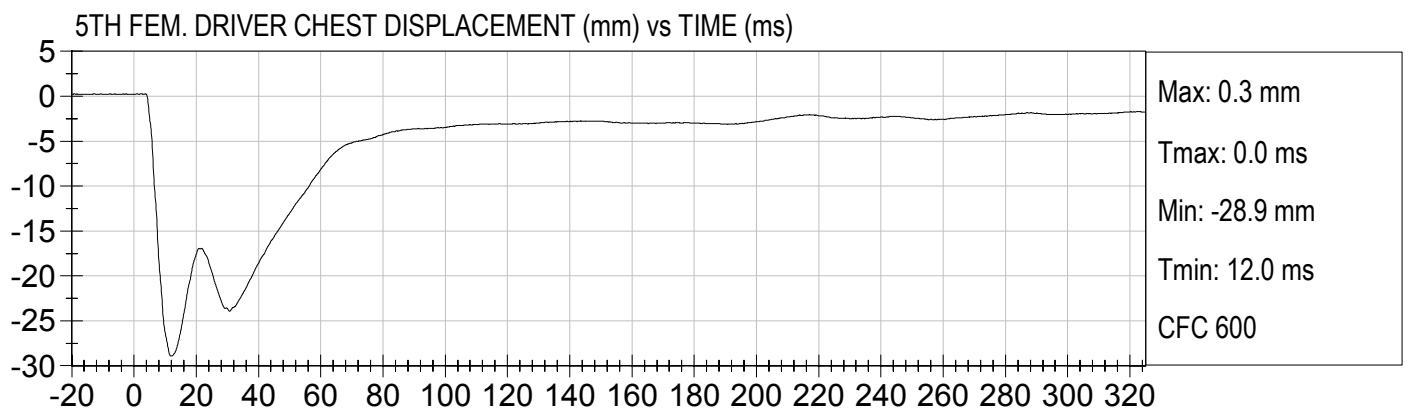
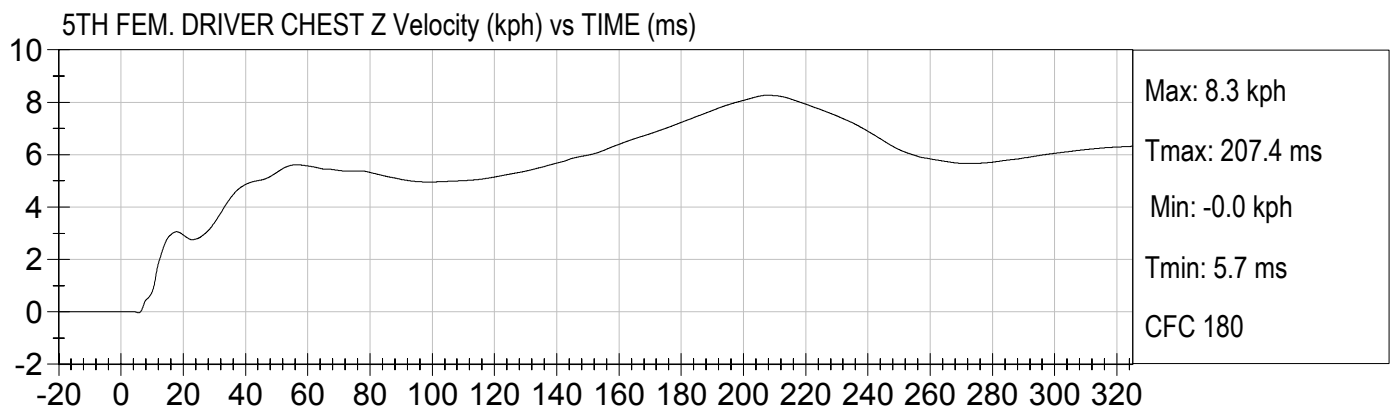
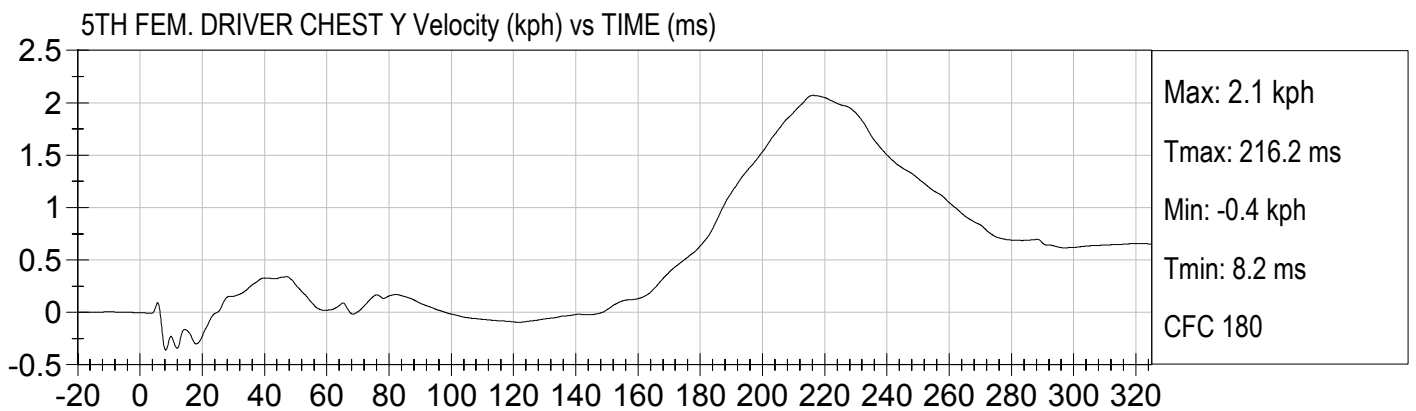
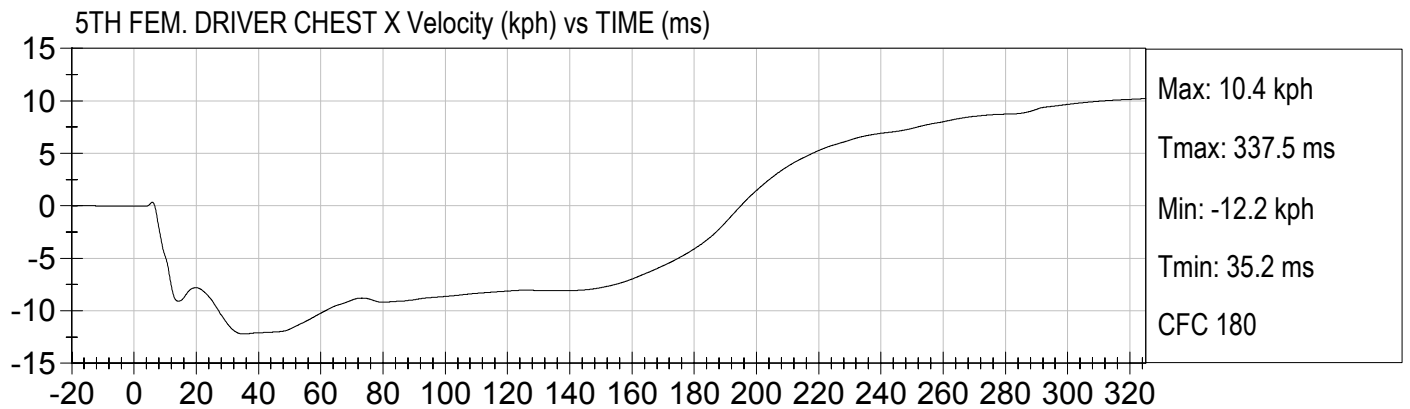


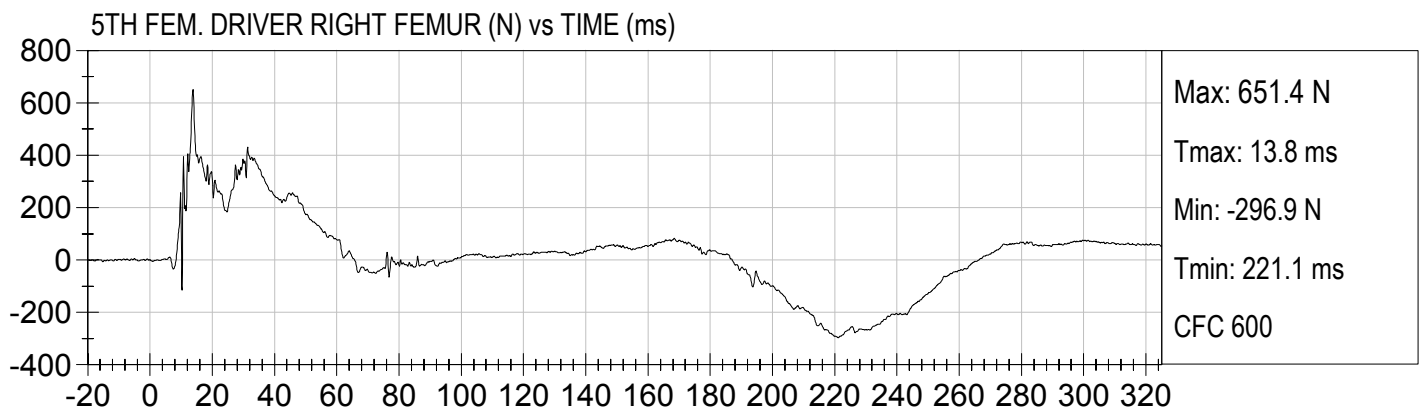
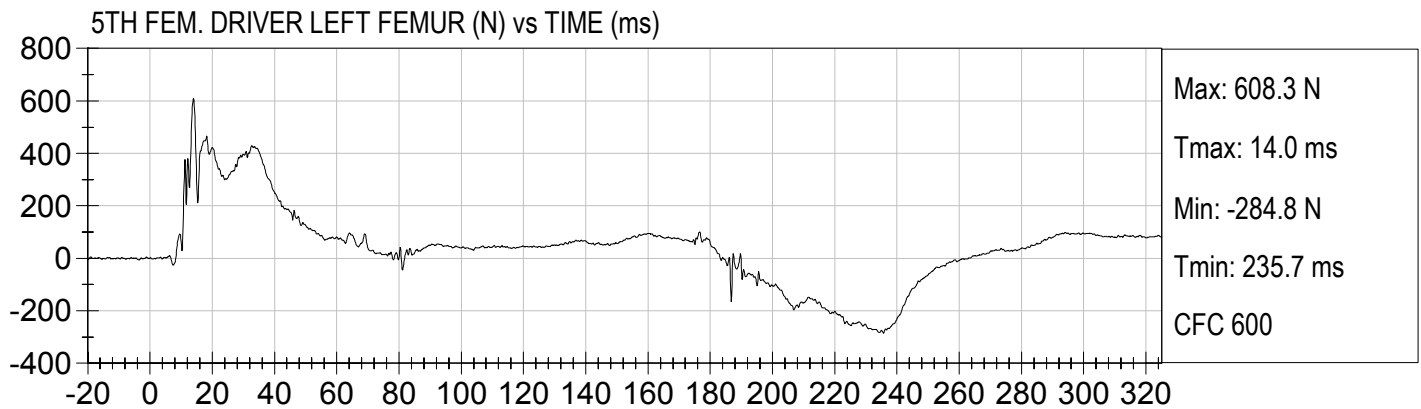
Drv. Occipital Condyle Moment (Nm) vs TIME (ms)





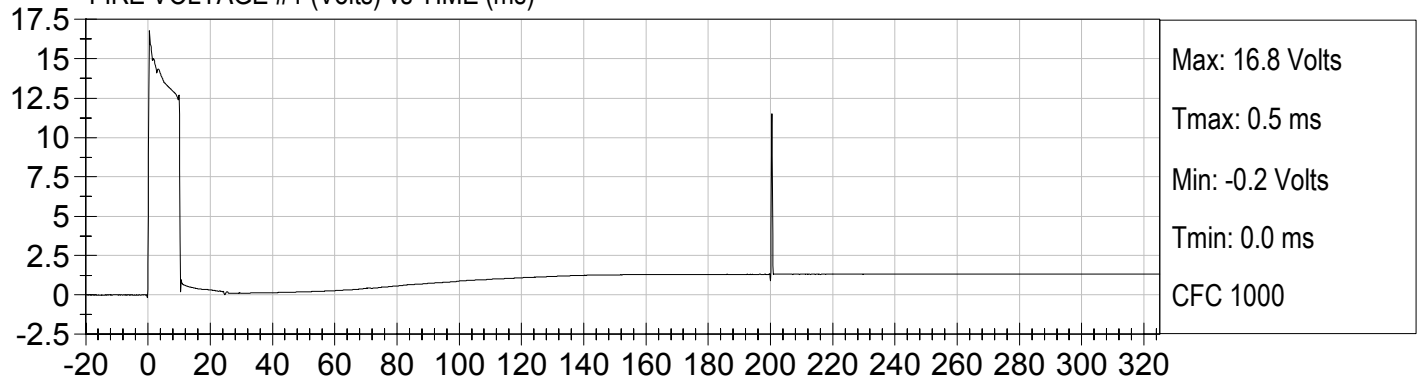




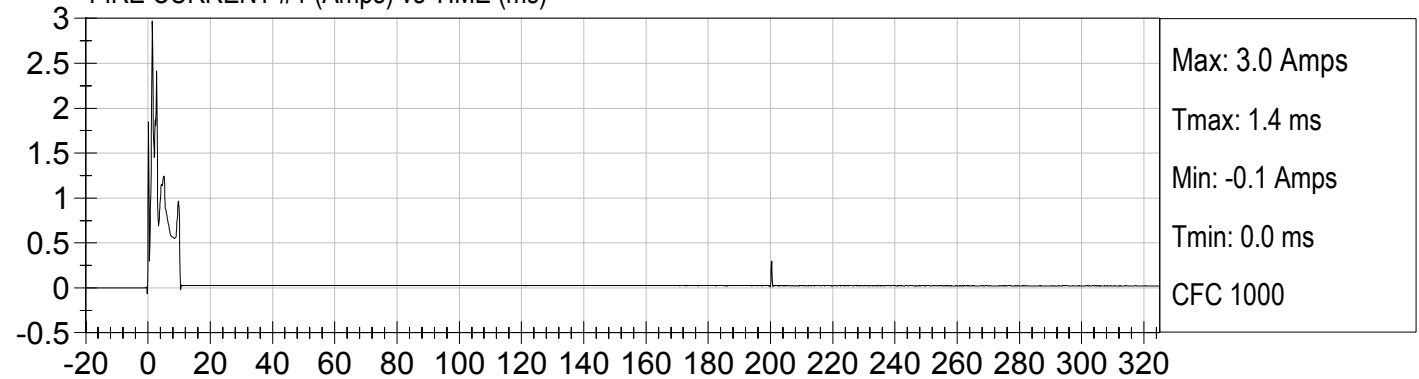




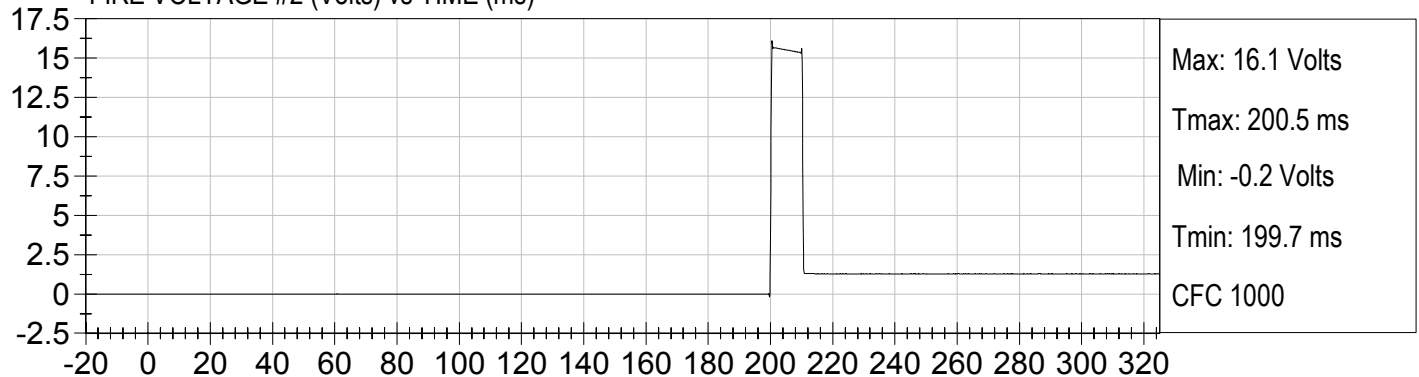
FIRE VOLTAGE #1 (Volts) vs TIME (ms)



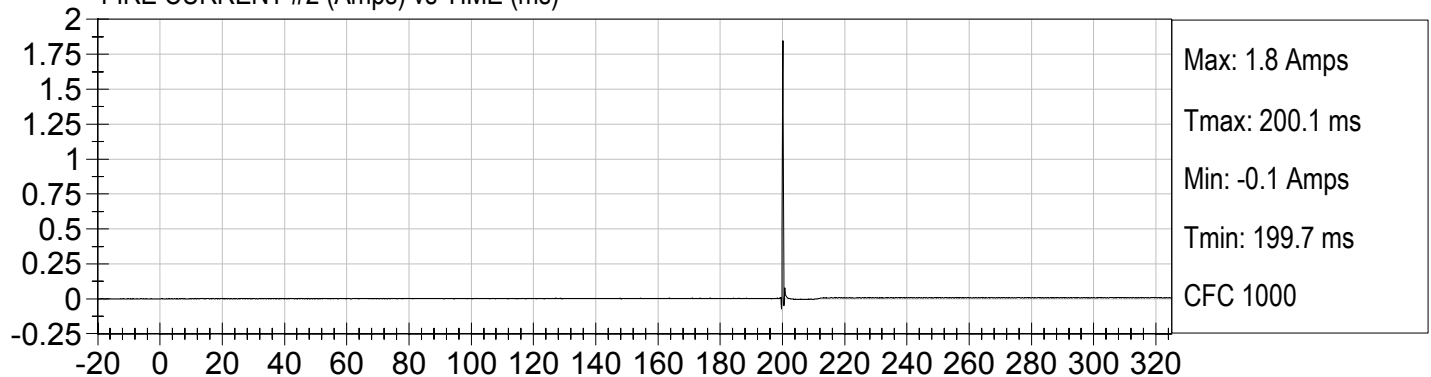
FIRE CURRENT #1 (Amps) vs TIME (ms)



FIRE VOLTAGE #2 (Volts) vs TIME (ms)

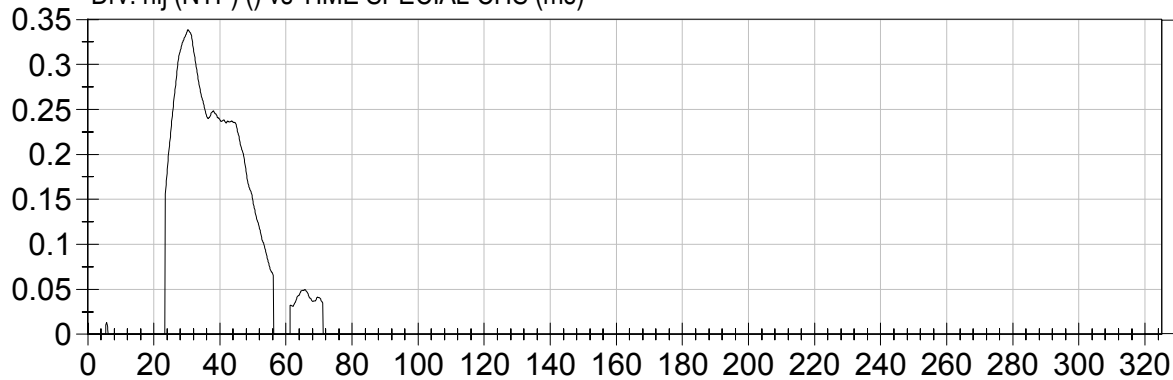


FIRE CURRENT #2 (Amps) vs TIME (ms)



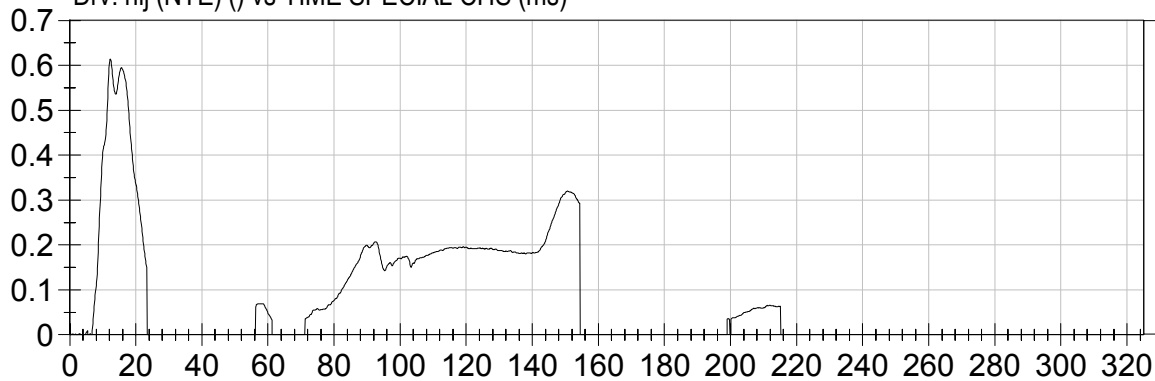


Drv. nij (NTF) ( ) vs TIME SPECIAL CHS (ms)



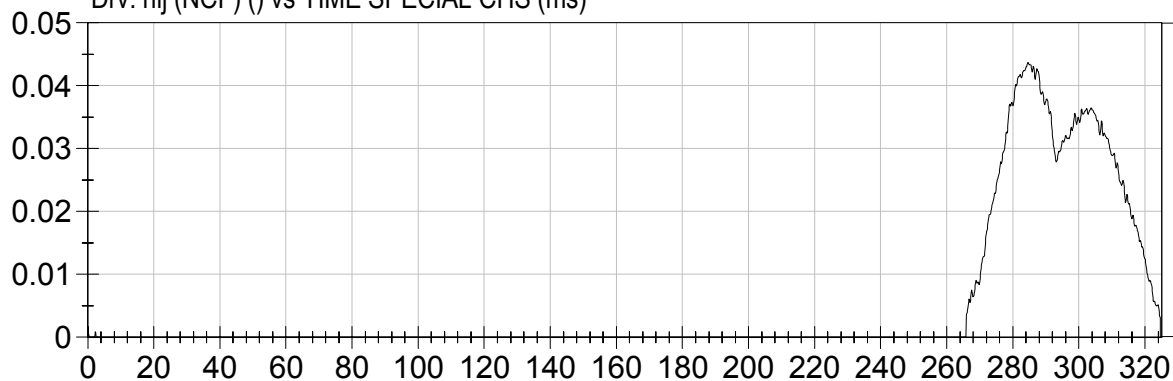
Max: 0.3  
Tmax: 30.4 ms  
Min: 0.0  
Tmin: 0.2 ms  
CFC 600

Drv. nij (NTE) ( ) vs TIME SPECIAL CHS (ms)



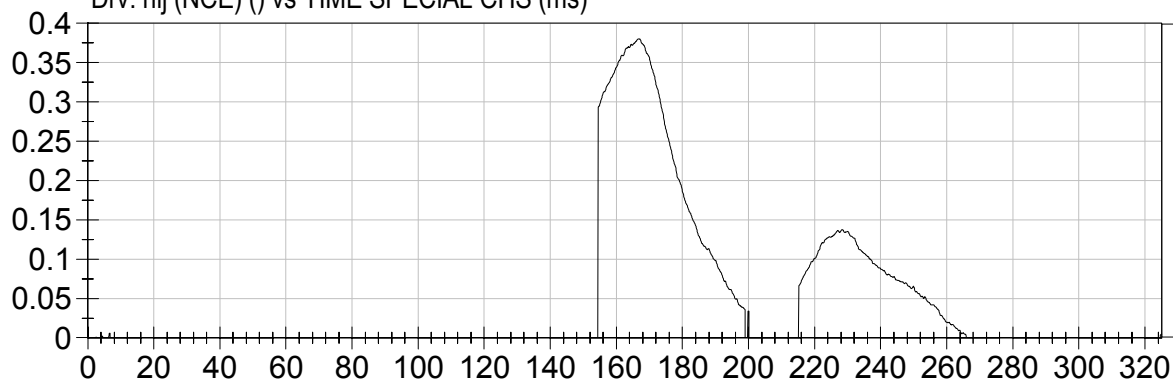
Max: 0.6  
Tmax: 12.3 ms  
Min: 0.0  
Tmin: 0.1 ms  
CFC 600

Drv. nij (NCF) ( ) vs TIME SPECIAL CHS (ms)



Max: 0.0  
Tmax: 284.6 ms  
Min: 0.0  
Tmin: 0.1 ms  
CFC 600

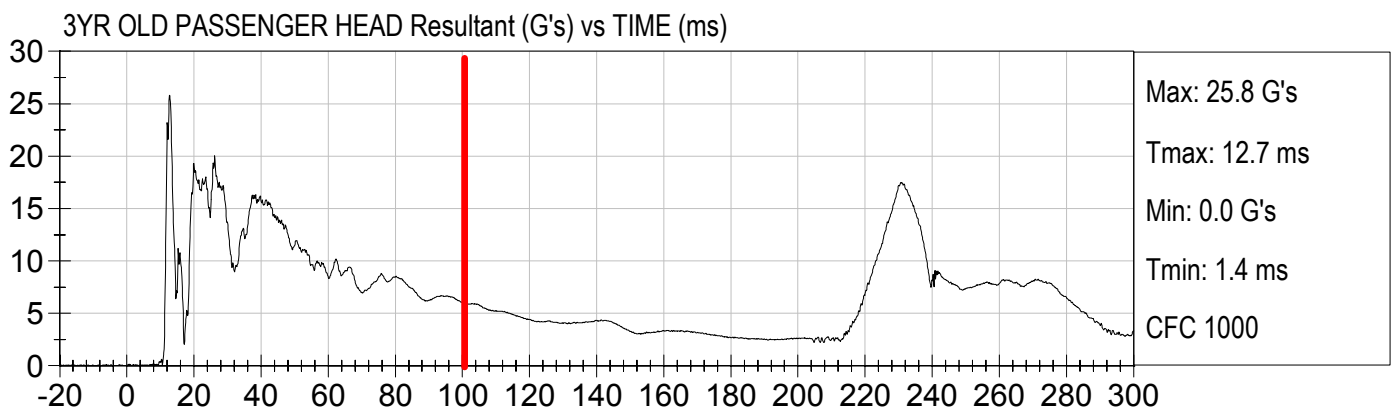
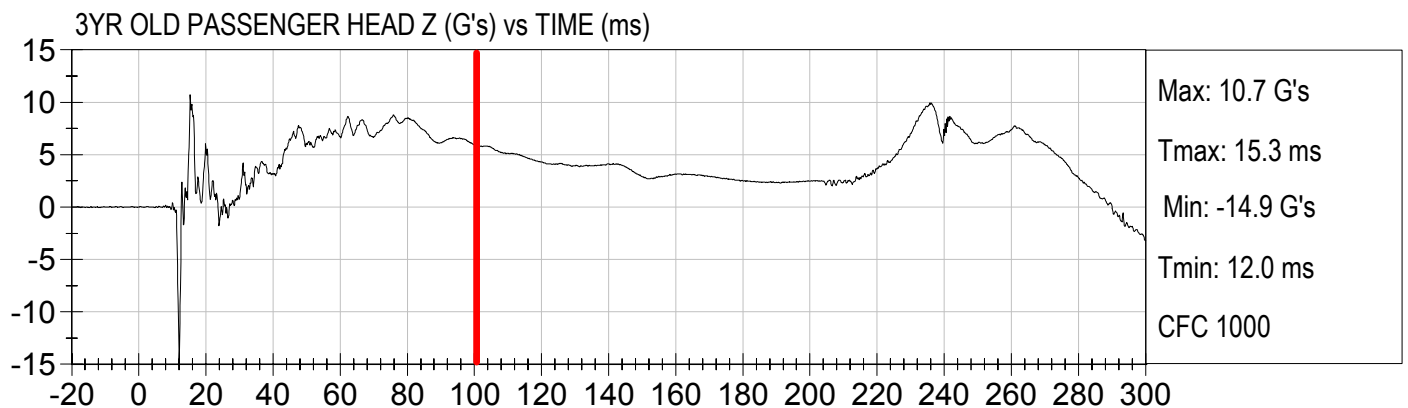
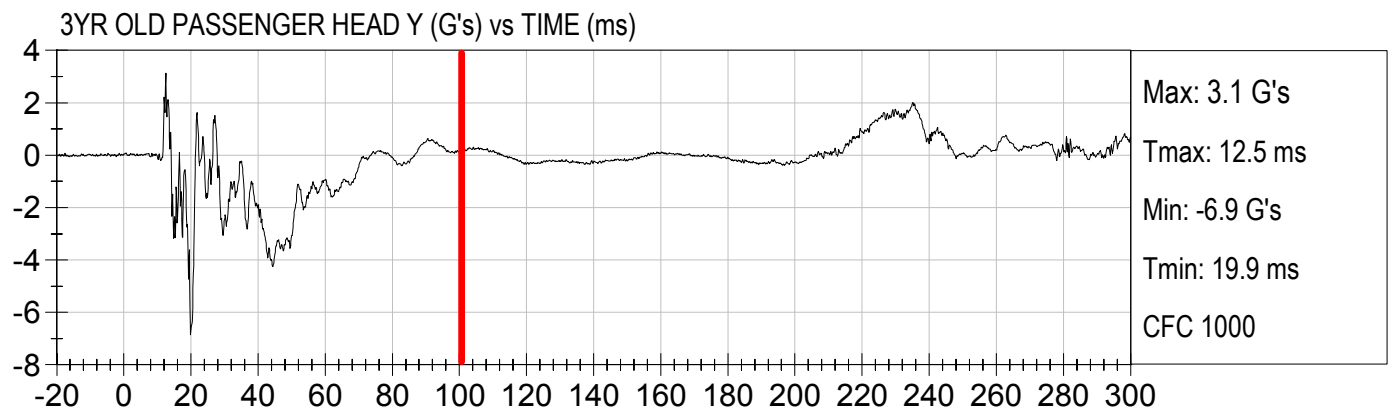
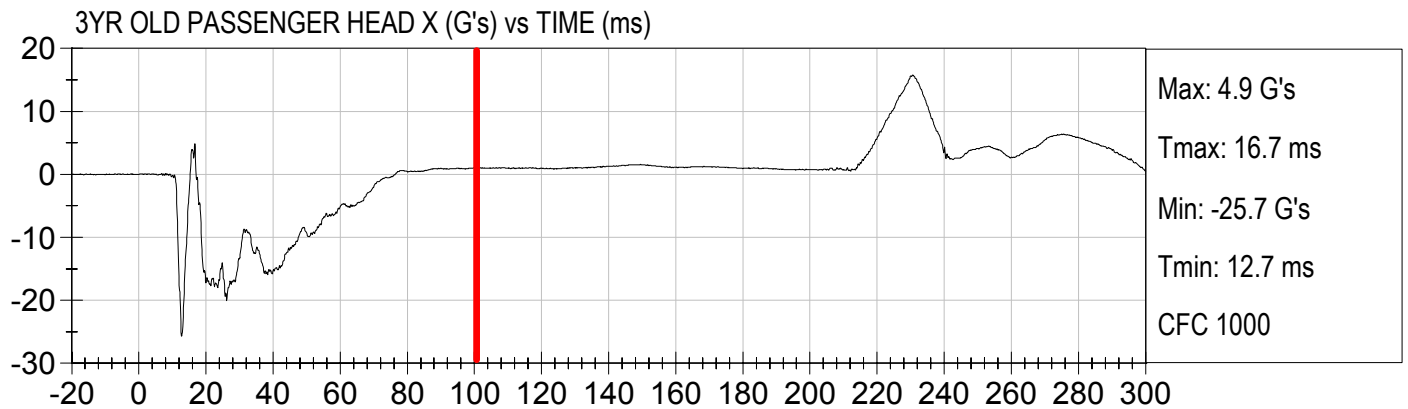
Drv. nij (NCE) ( ) vs TIME SPECIAL CHS (ms)



Max: 0.4  
Tmax: 167.0 ms  
Min: 0.0  
Tmin: 0.1 ms  
CFC 600

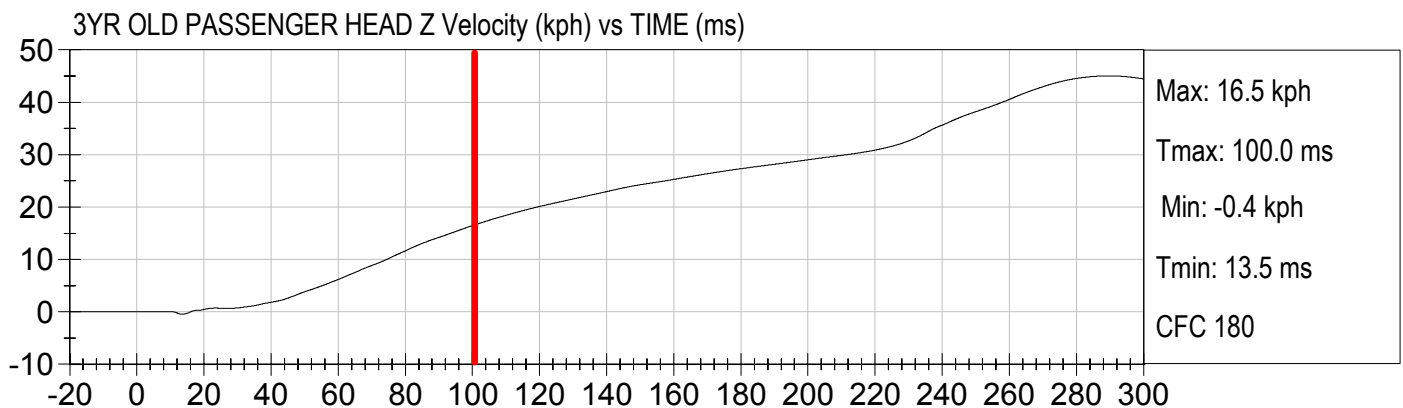
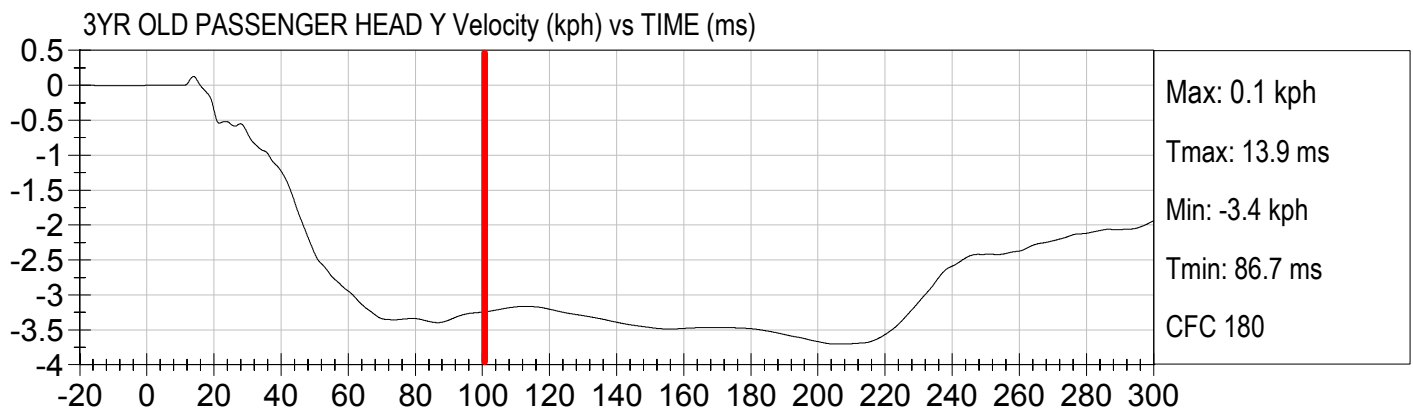
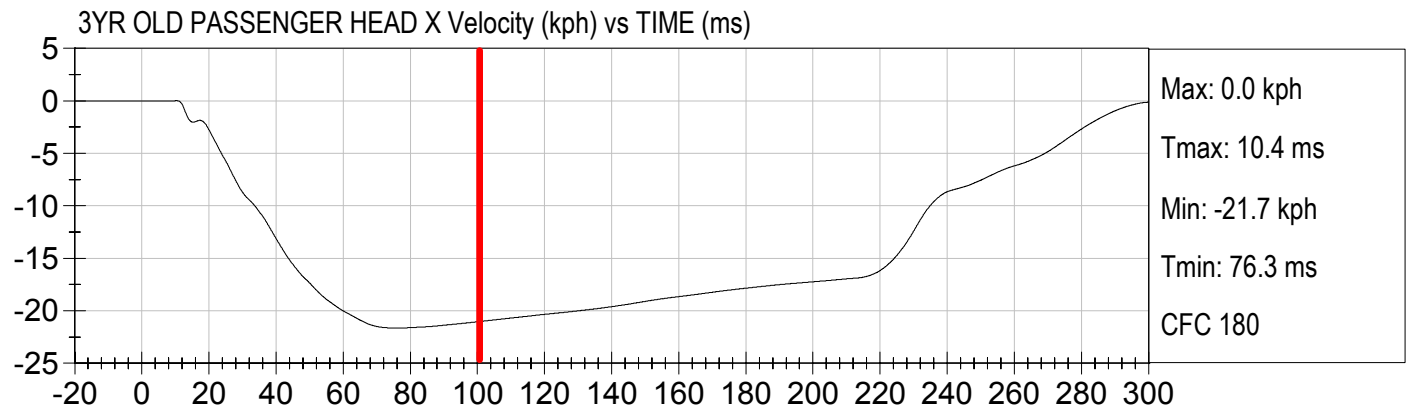


Injury Values Calculated between 0ms and 100ms





Injury Values Calculated between 0ms and 100ms

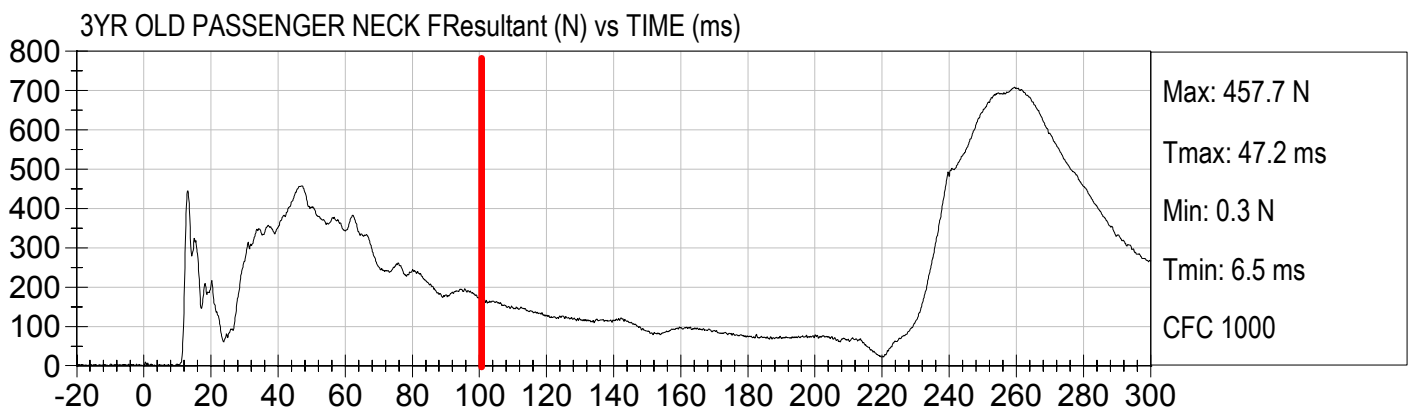
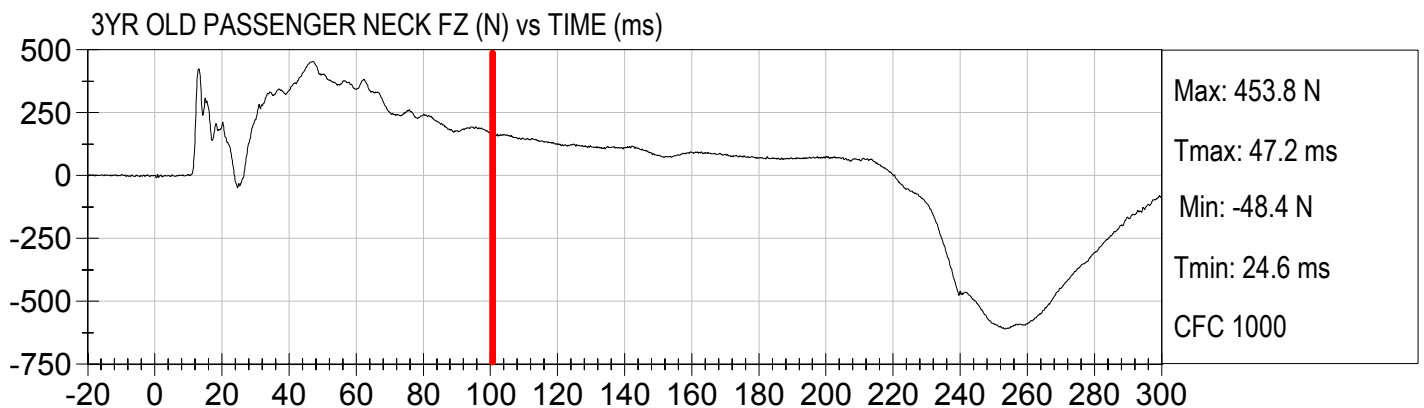
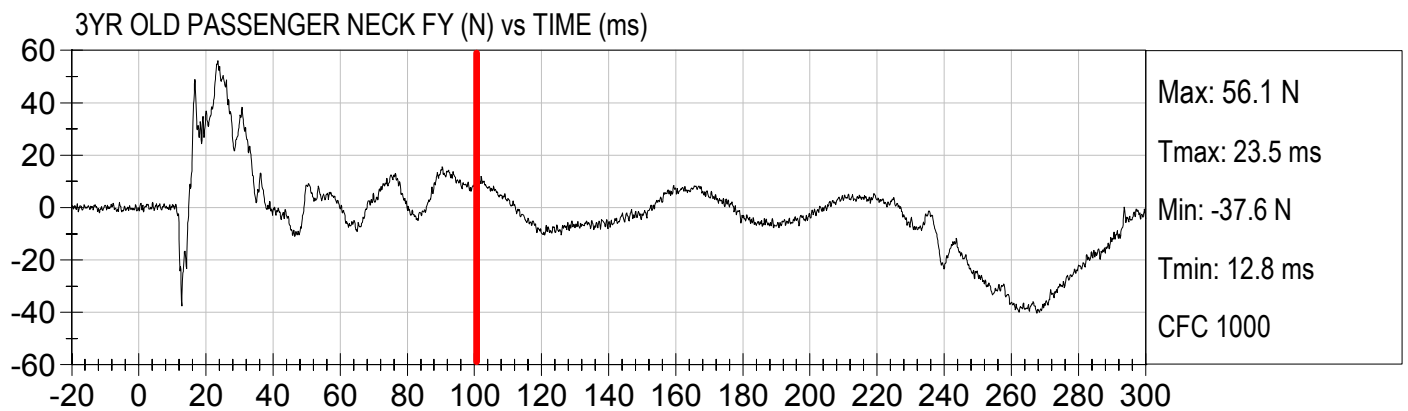
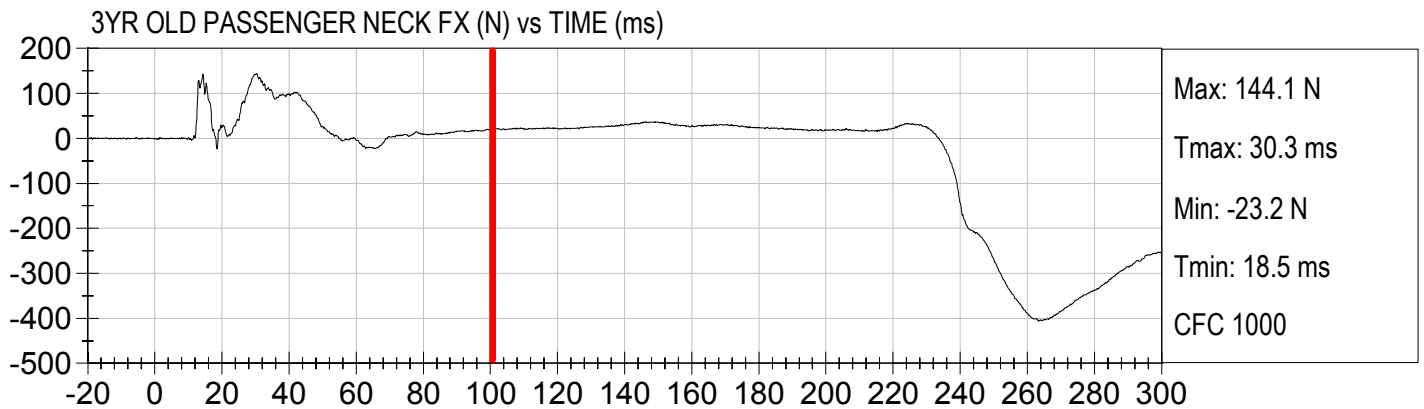




LOW RISK DEPLOYMENT  
2005 MERCEDES BENZ C230 (3YO P1)

Test Date: 03/10/05  
Speed: 0.0 mph ( 0.0 km/h)

Injury Values Calculated between 0ms and 100ms



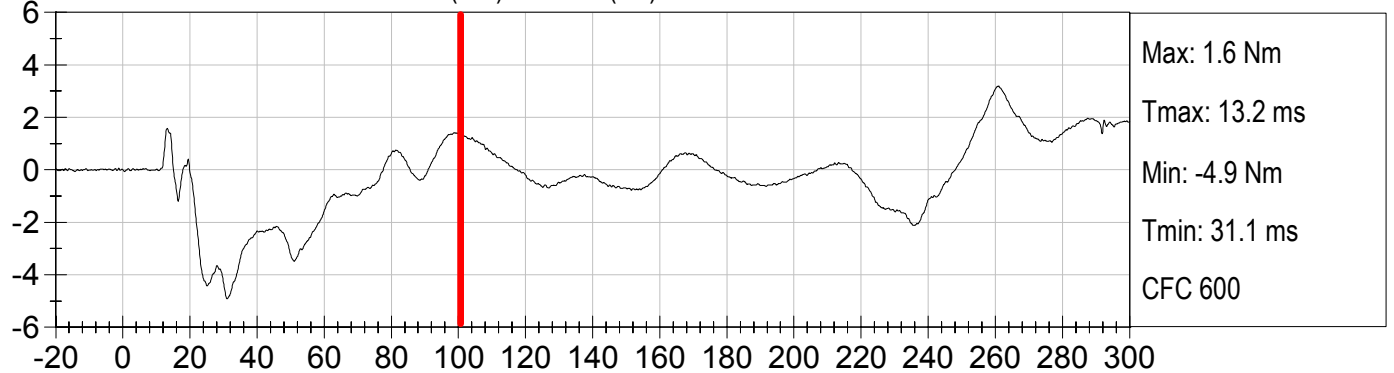


LOW RISK DEPLOYMENT  
2005 MERCEDES BENZ C230 (3YO P1)

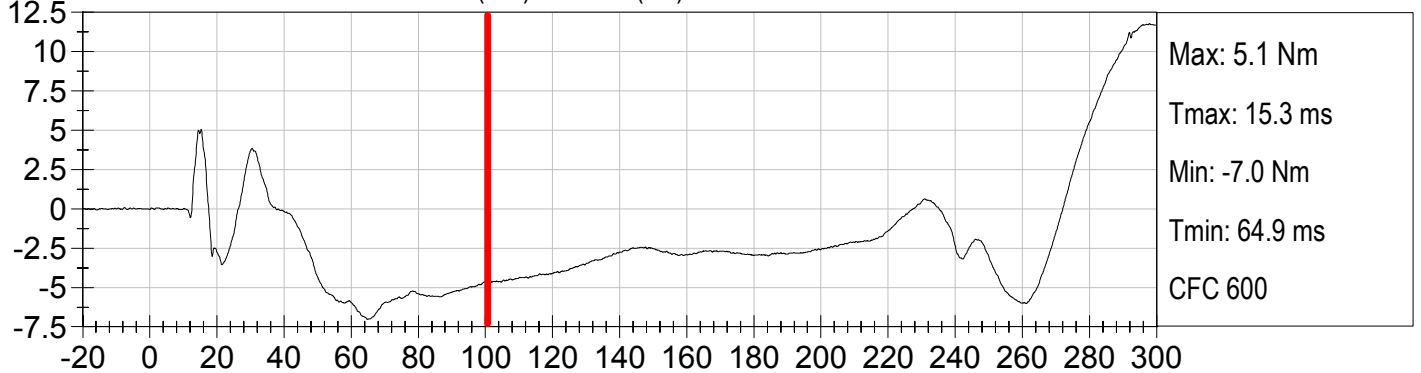
Test Date: 03/10/05  
Speed: 0.0 mph ( 0.0 km/h)

Injury Values Calculated between 0ms and 100ms

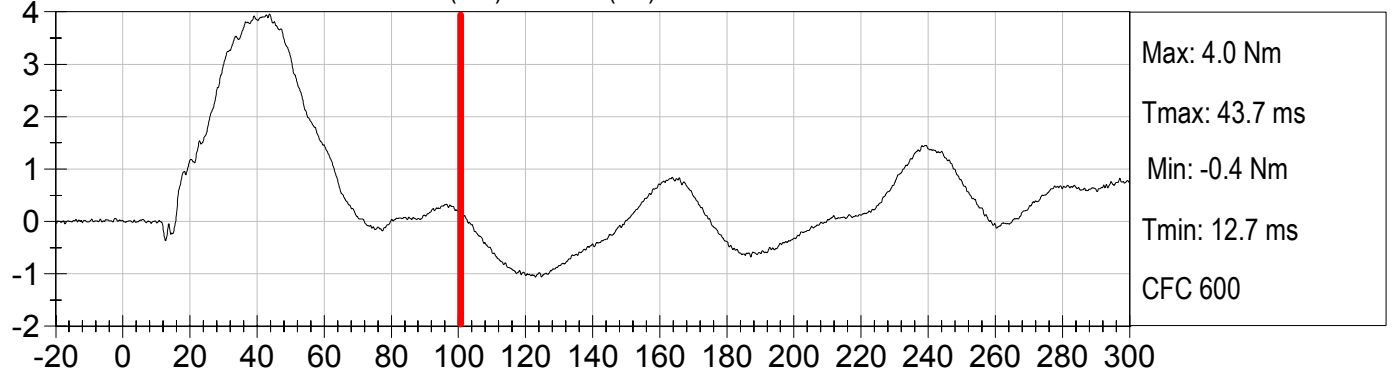
3YR OLD PASSENGER NECK MX (Nm) vs TIME (ms)



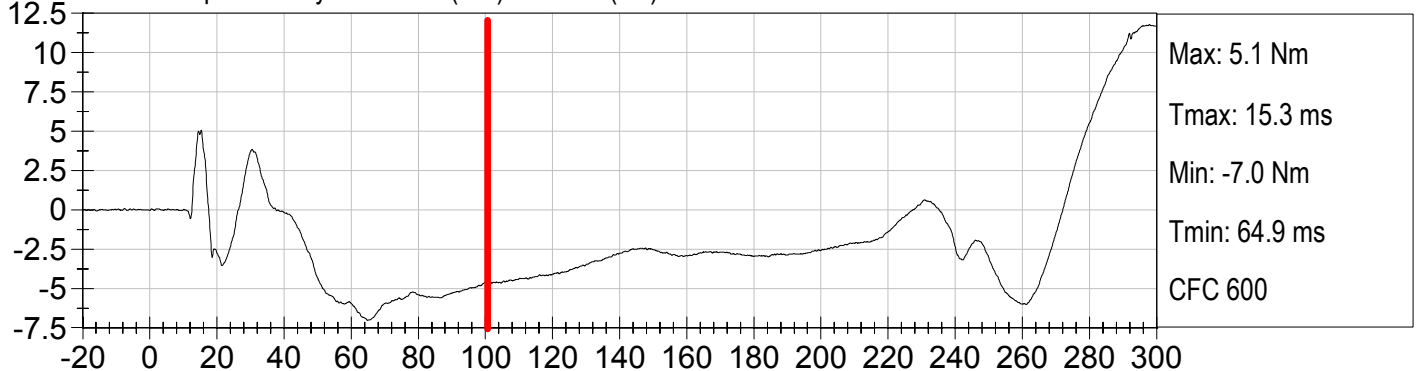
3YR OLD PASSENGER NECK MY (Nm) vs TIME (ms)



3YR OLD PASSENGER NECK MZ (Nm) vs TIME (ms)



Pass. Occipital Condyle Moment (Nm) vs TIME (ms)



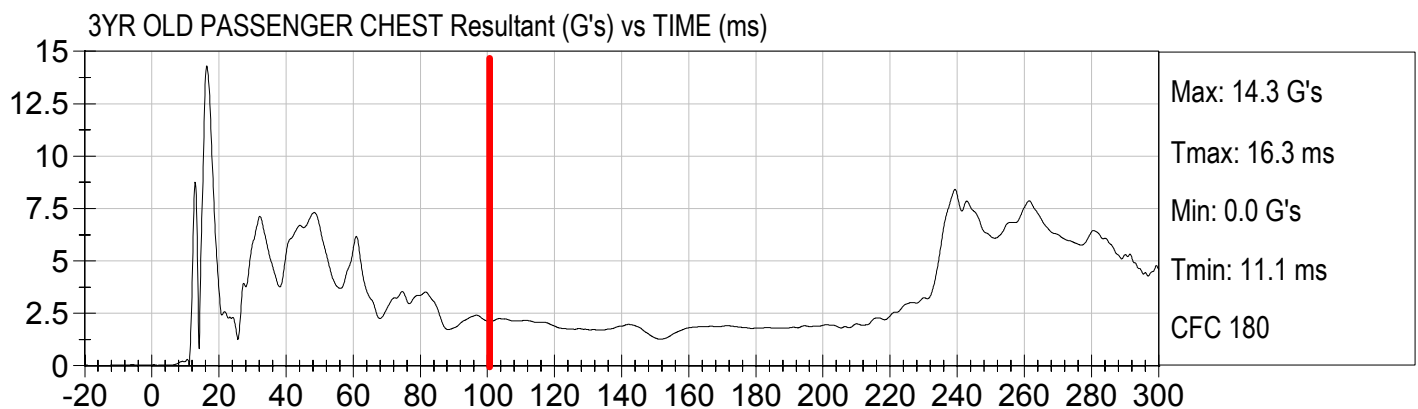
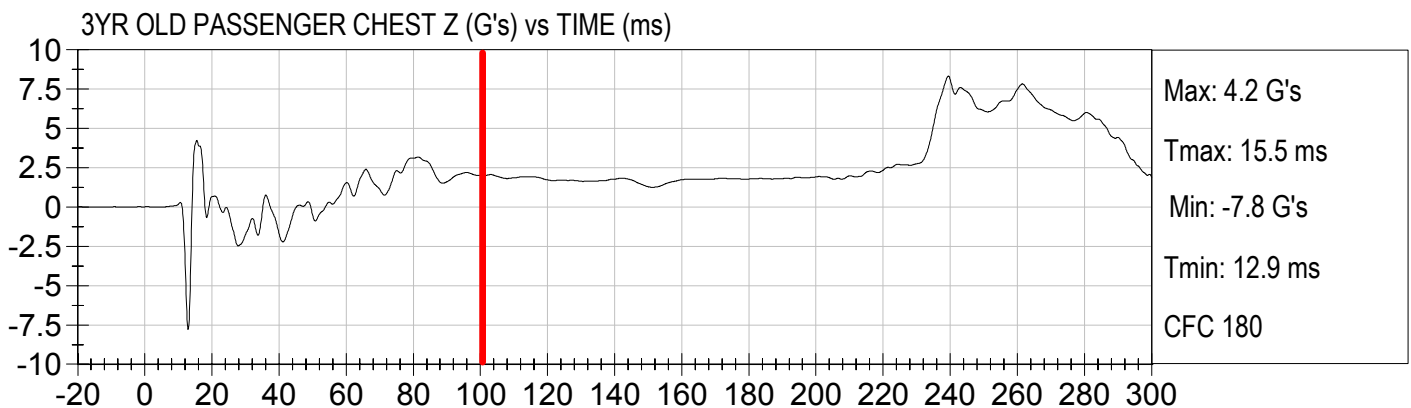
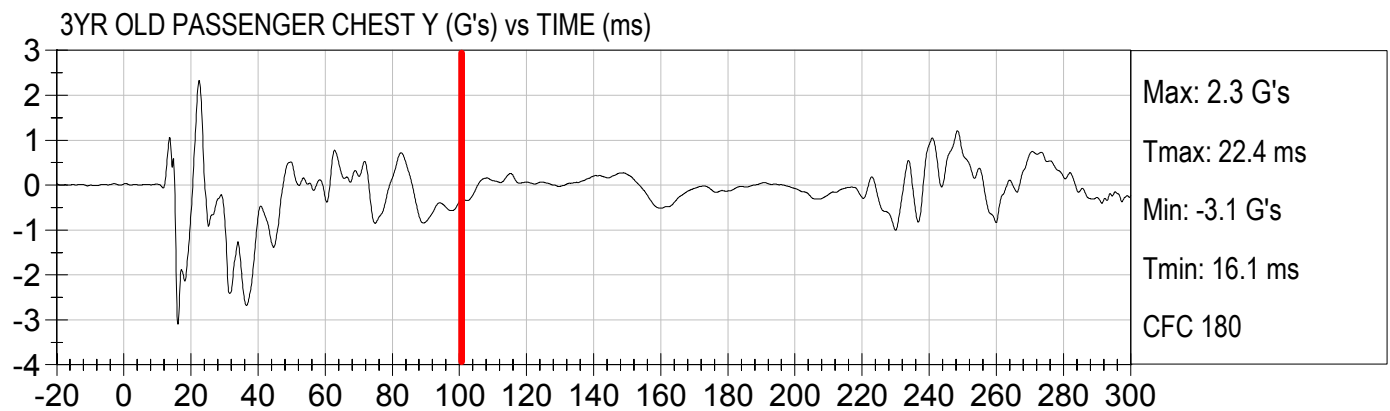
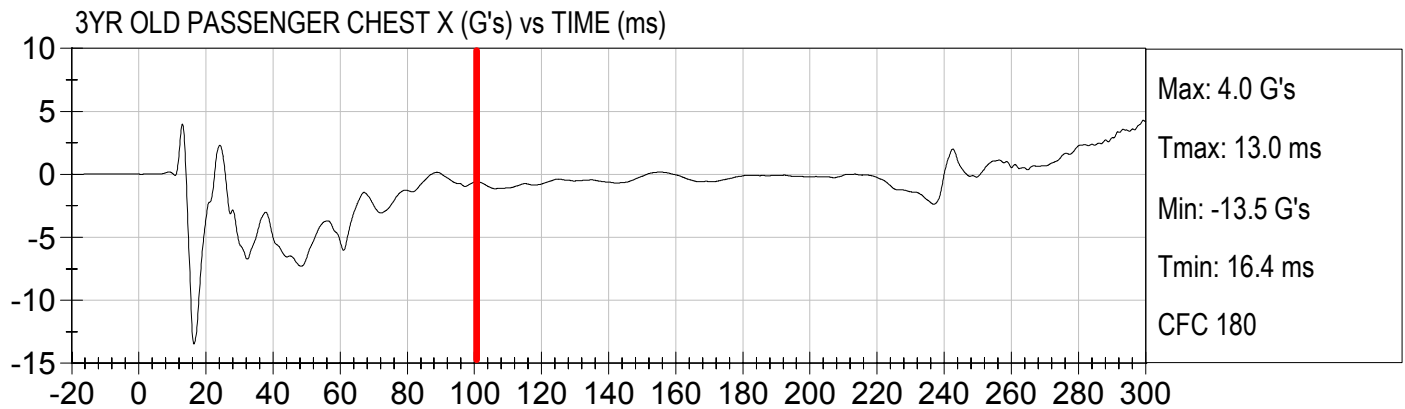




LOW RISK DEPLOYMENT  
2005 MERCEDES BENZ C230 (3YO P1)

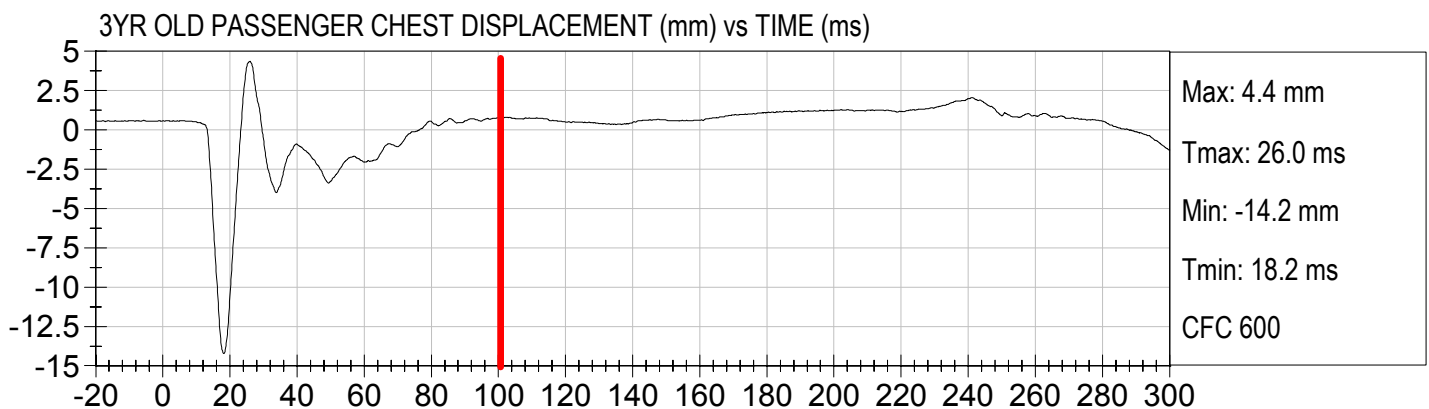
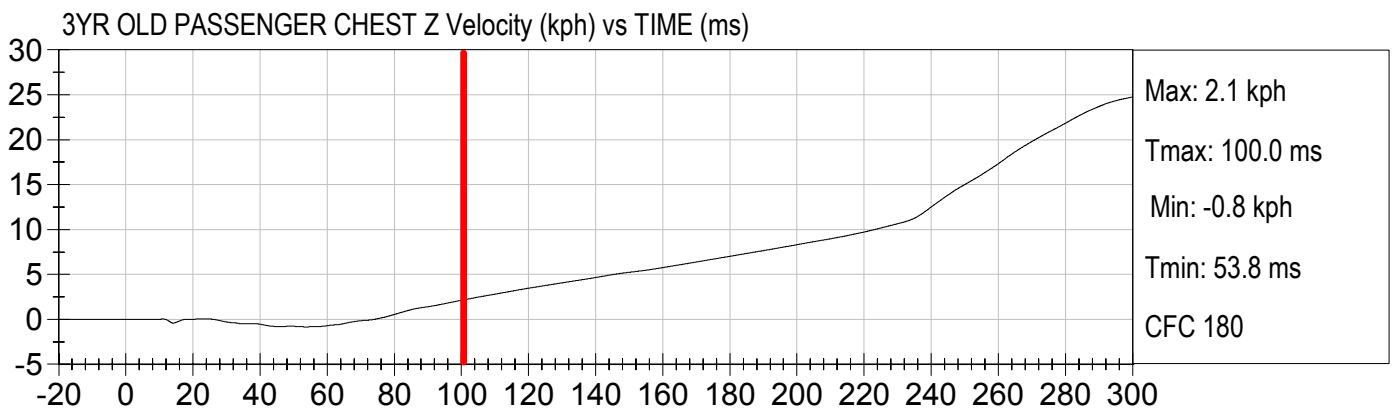
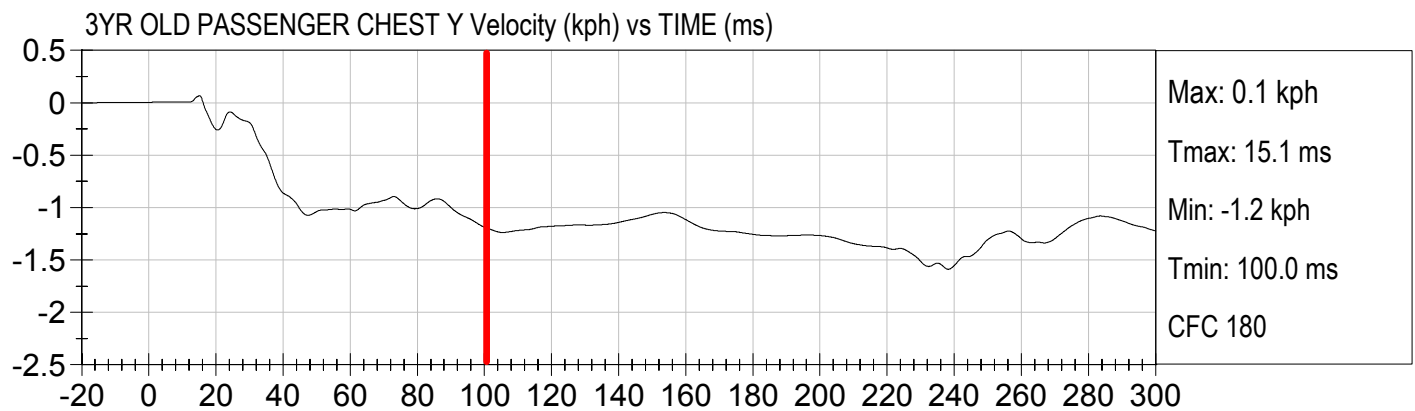
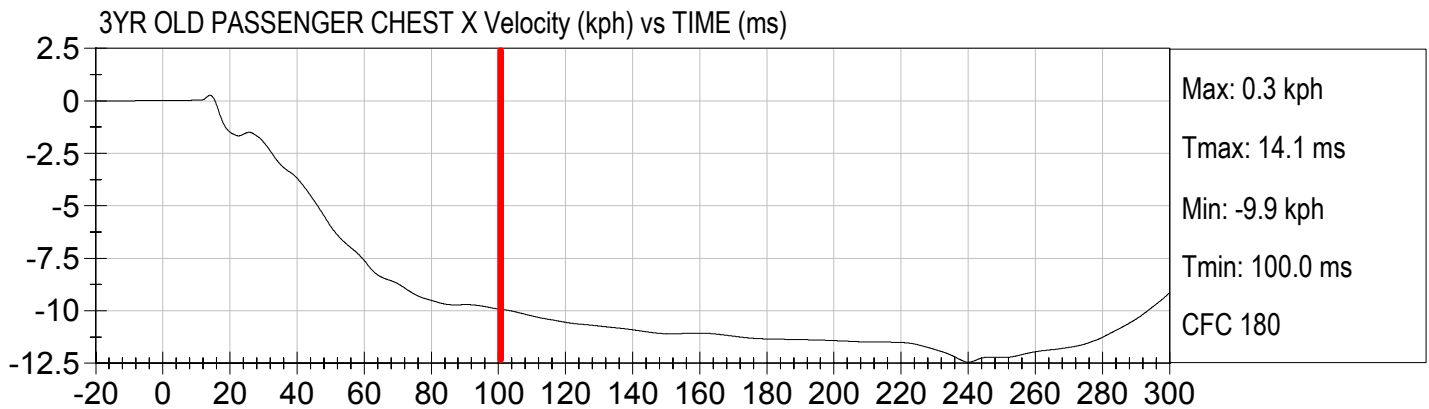
Test Date: 03/10/05  
Speed: 0.0 mph ( 0.0 km/h)

Injury Values Calculated between 0ms and 100ms



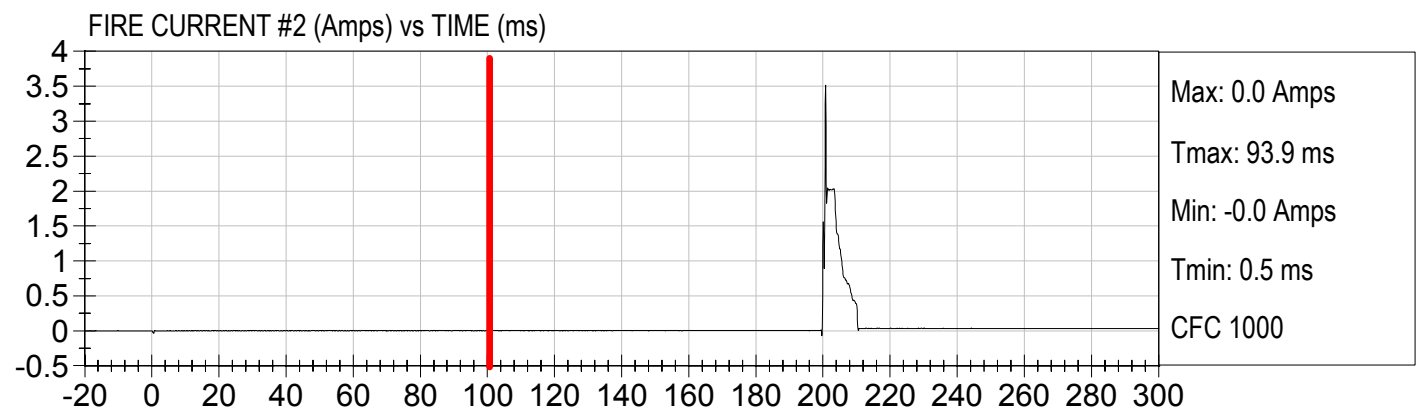
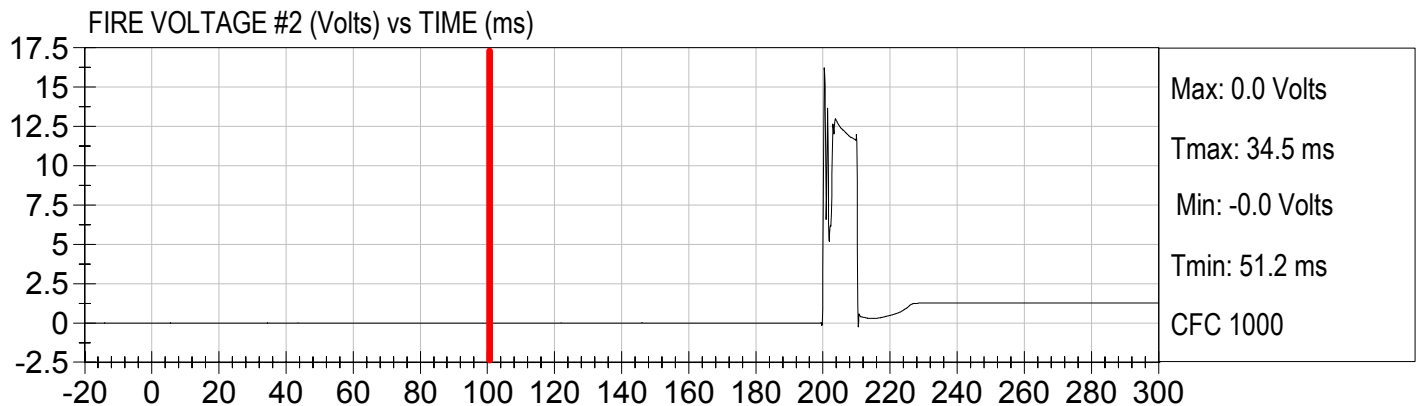
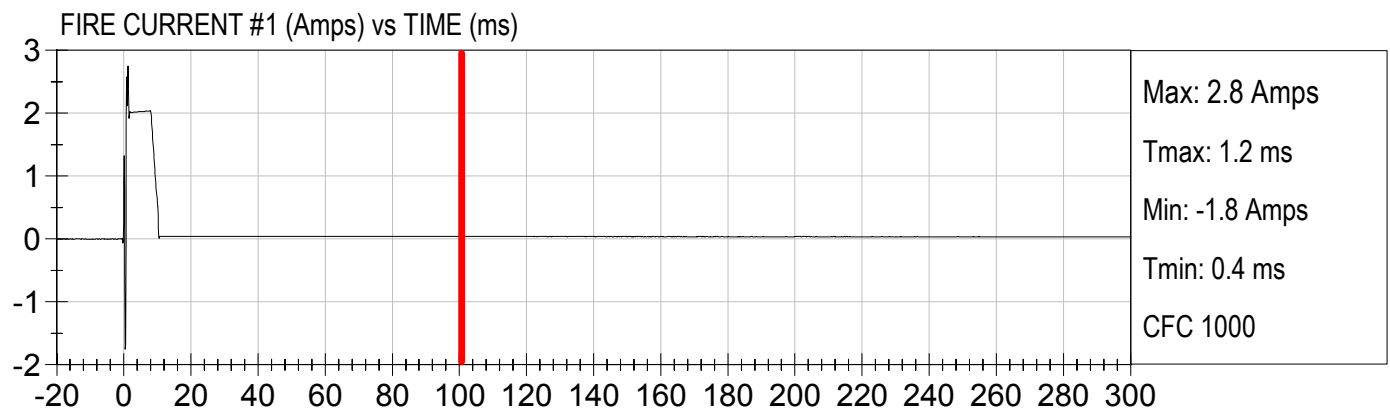
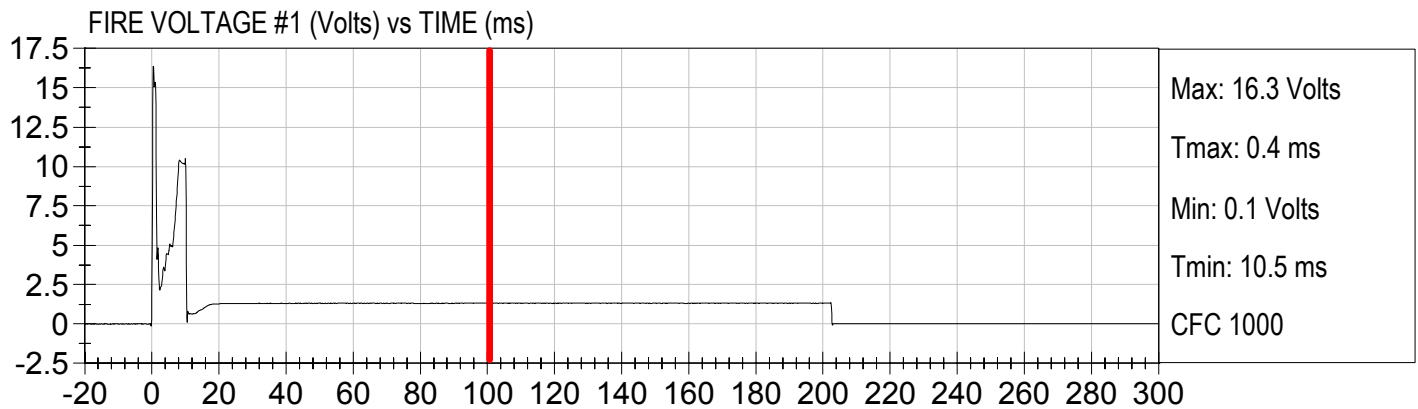


Injury Values Calculated between 0ms and 100ms



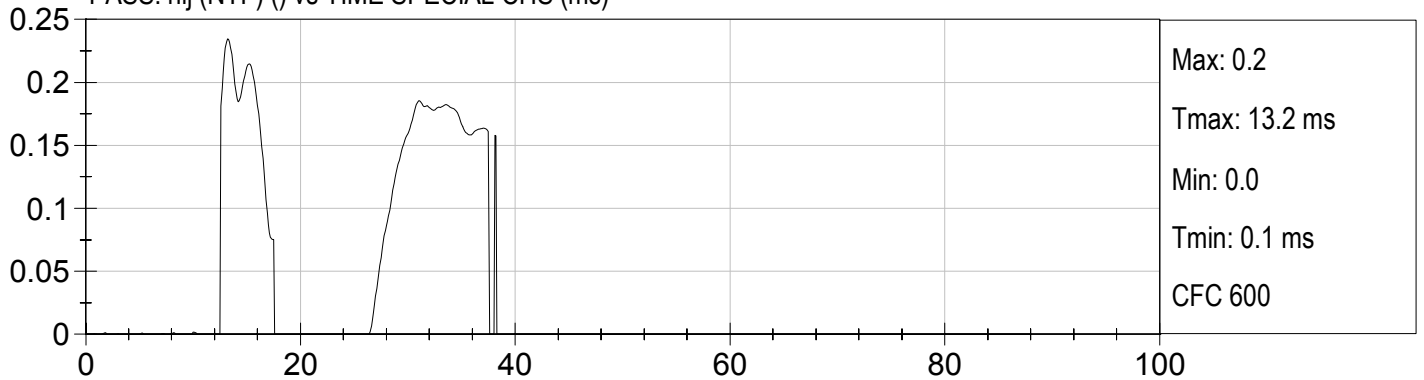


Injury Values Calculated between 0ms and 100ms

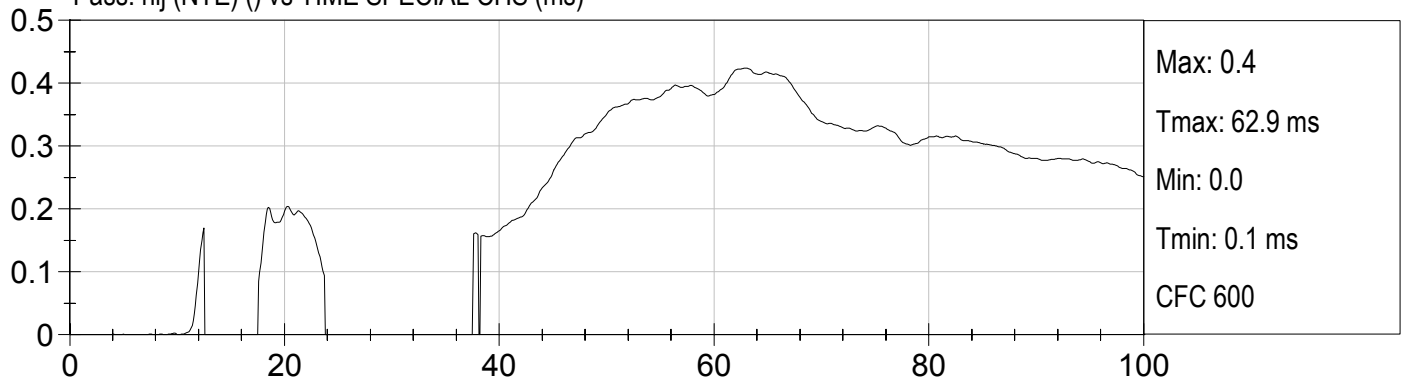




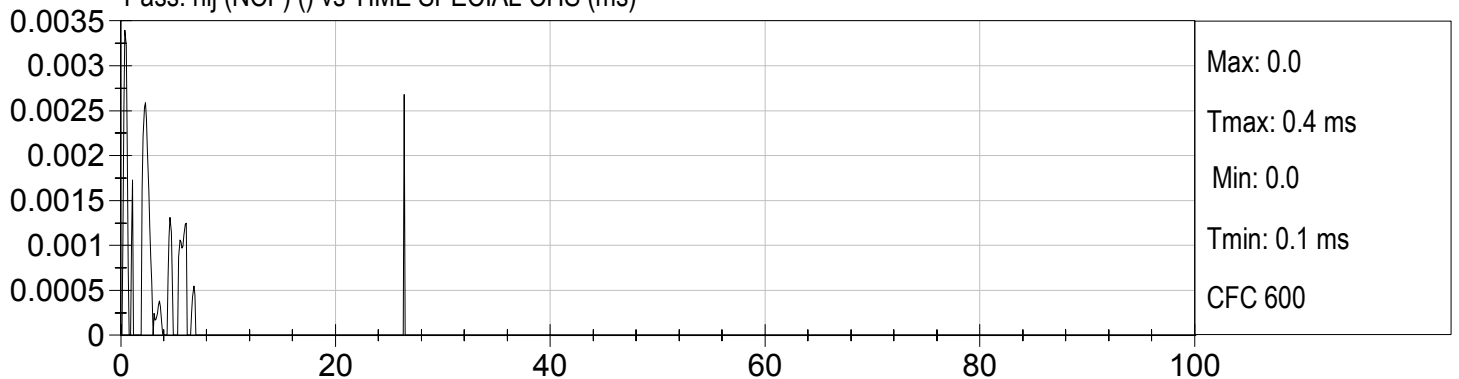
PASS. nij (NTF) () vs TIME SPECIAL CHS (ms)



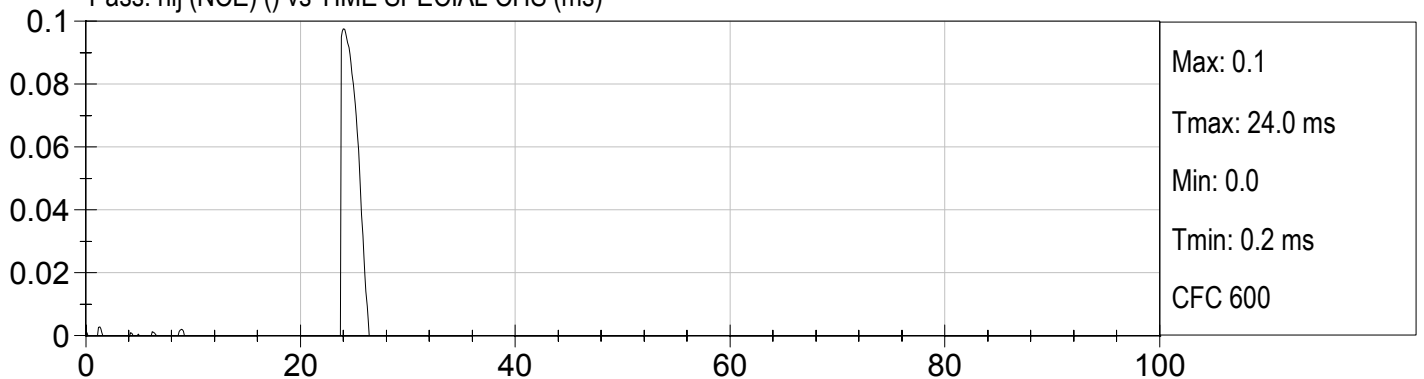
Pass. nij (NTE) () vs TIME SPECIAL CHS (ms)



Pass. nij (NCF) () vs TIME SPECIAL CHS (ms)



Pass. nij (NCE) () vs TIME SPECIAL CHS (ms)

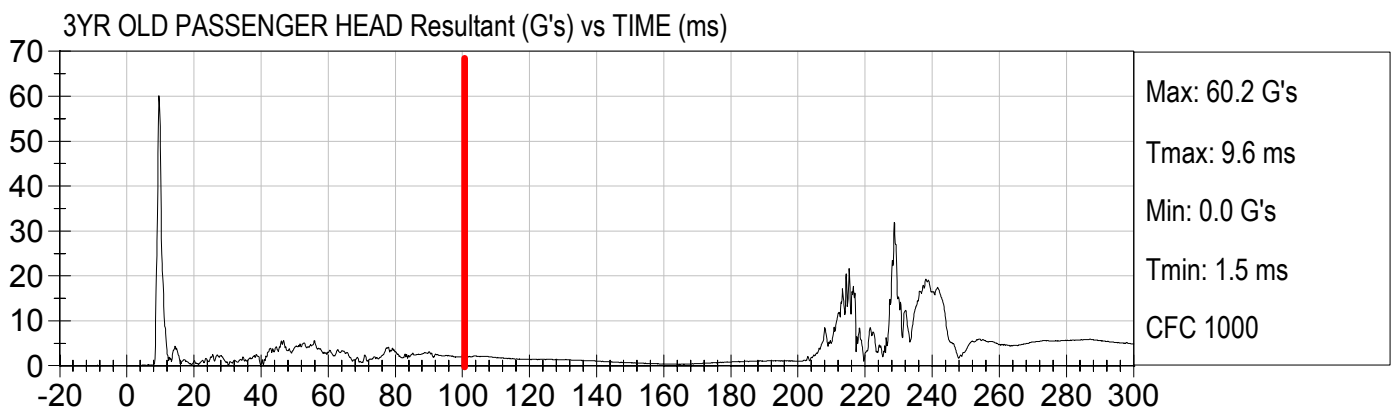
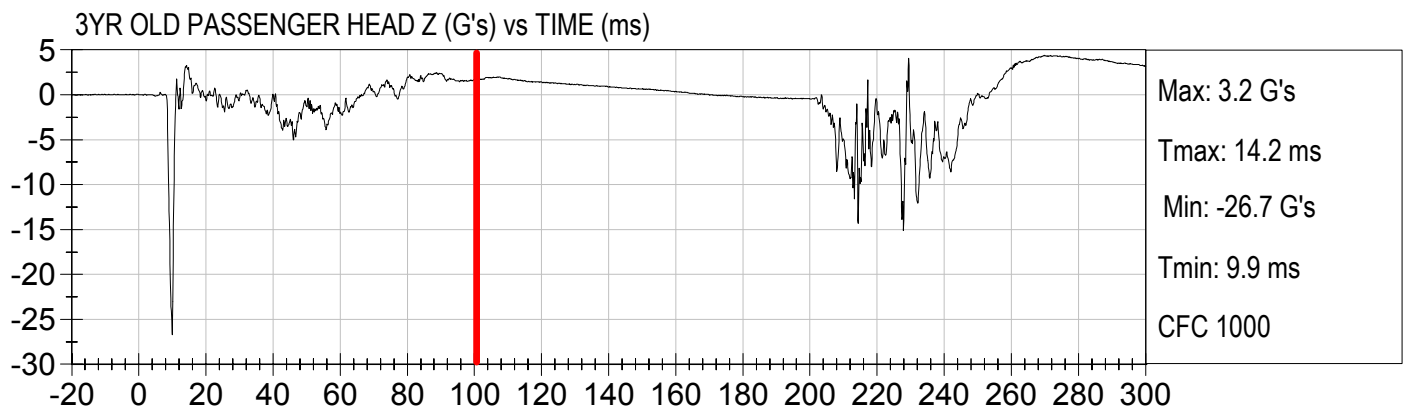
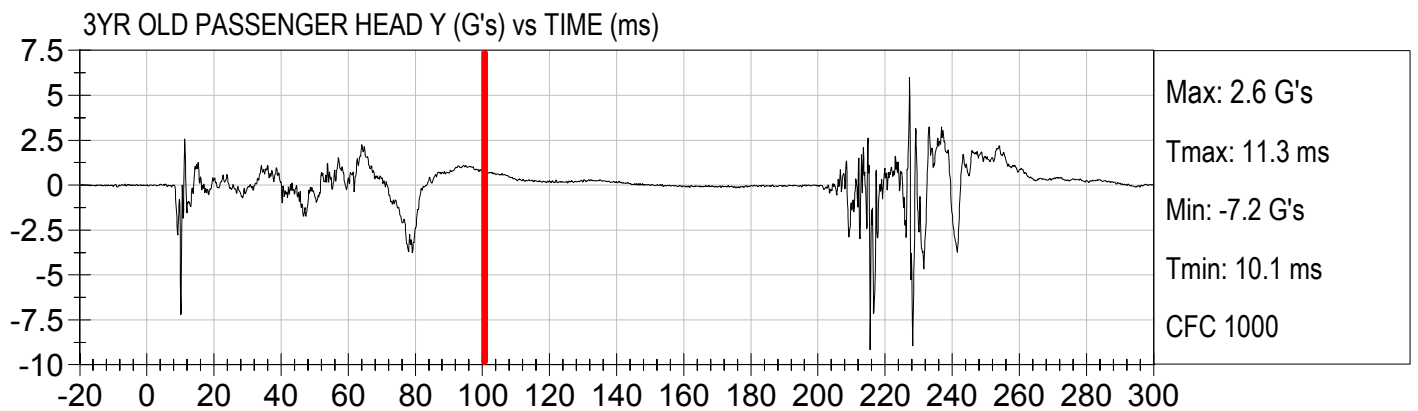
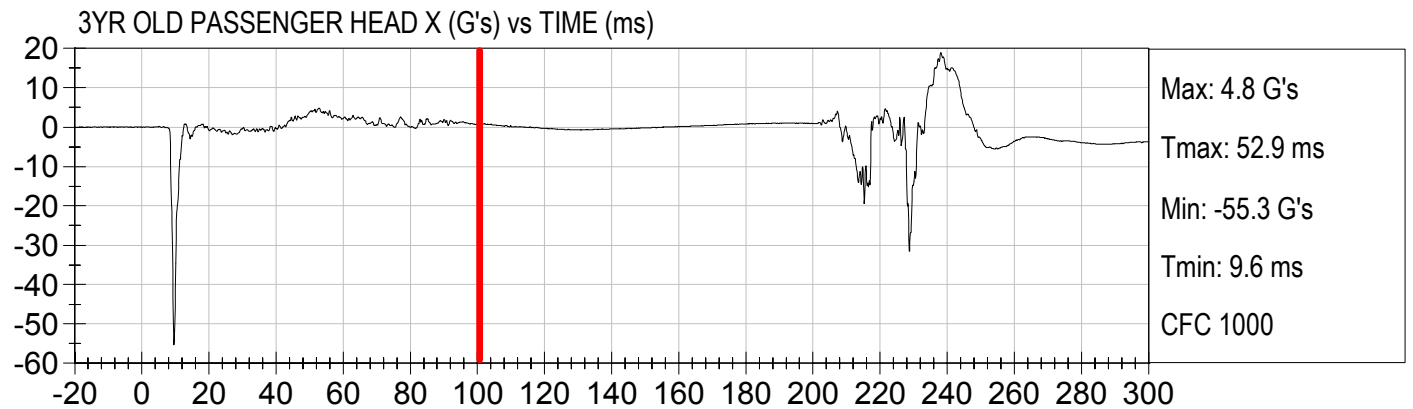




LOW RISK DEPLOYMENT  
2005 MERCEDES BENZ C230 (3YO P2)

Test Date: 04/20/05  
Speed: 0.0 mph ( 0.0 km/h)

Injury Values Calculated between 0ms and 100ms

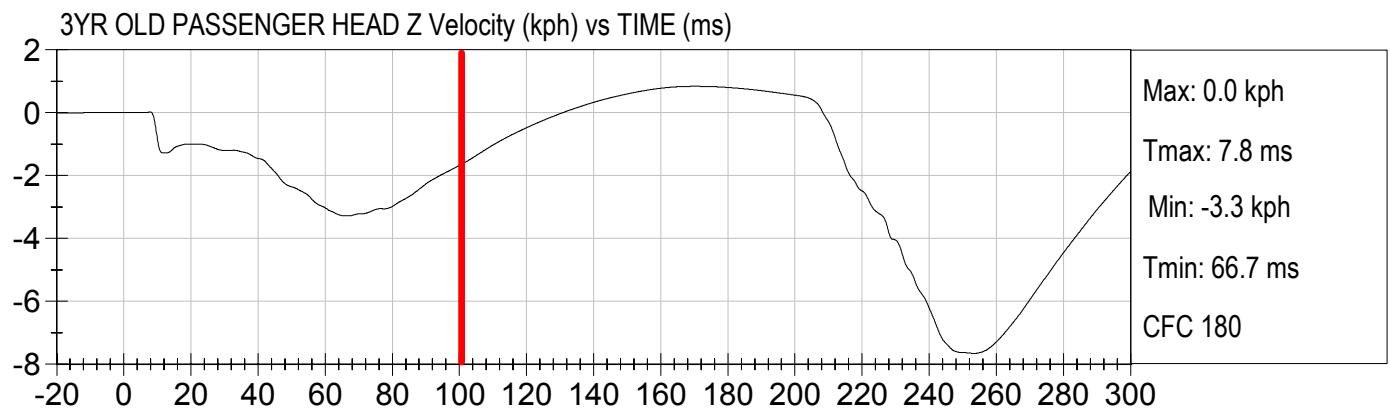
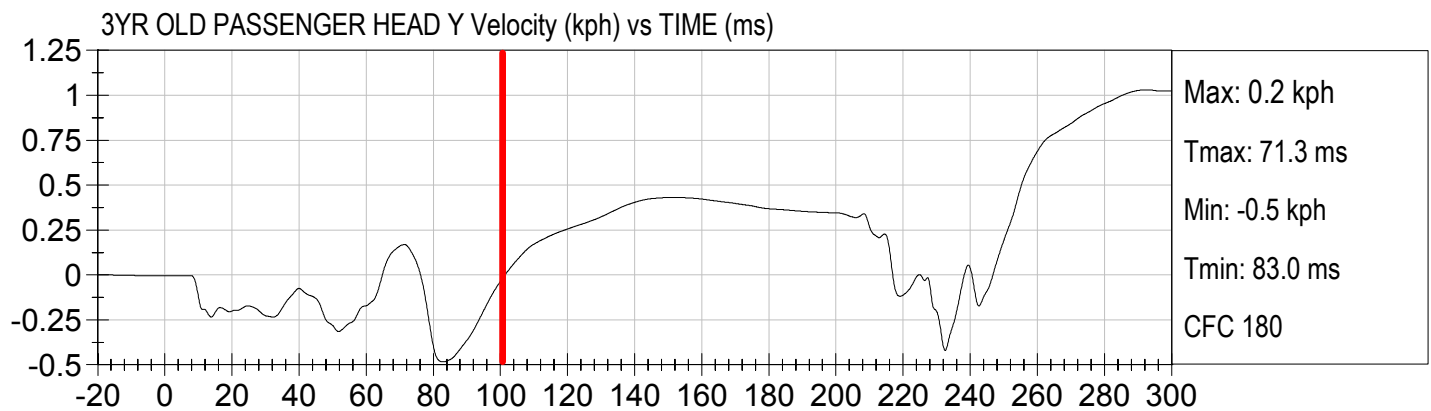
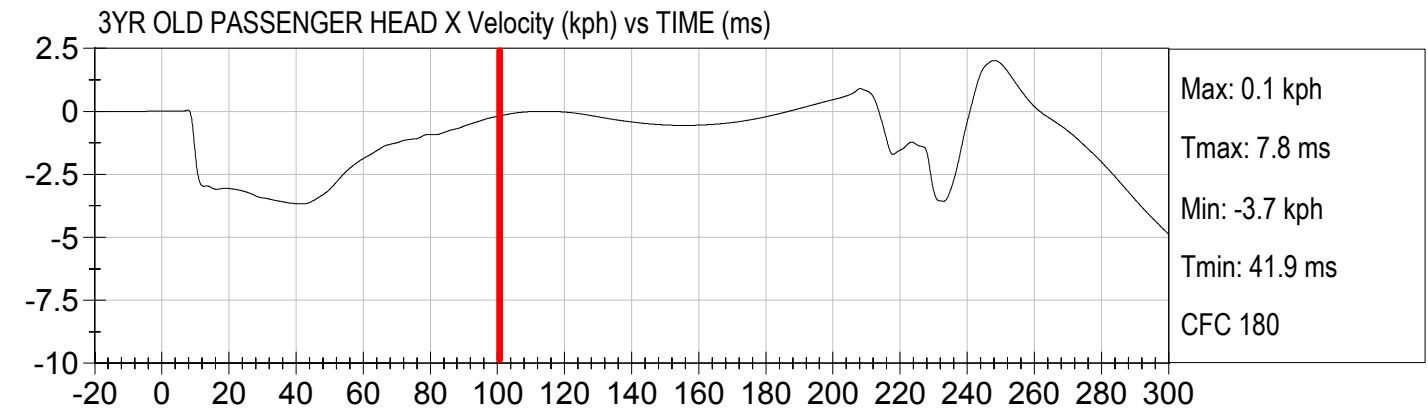




LOW RISK DEPLOYMENT  
2005 MERCEDES BENZ C230 (3YO P2)

Test Date: 04/20/05  
Speed: 0.0 mph ( 0.0 km/h)

Injury Values Calculated between 0ms and 100ms

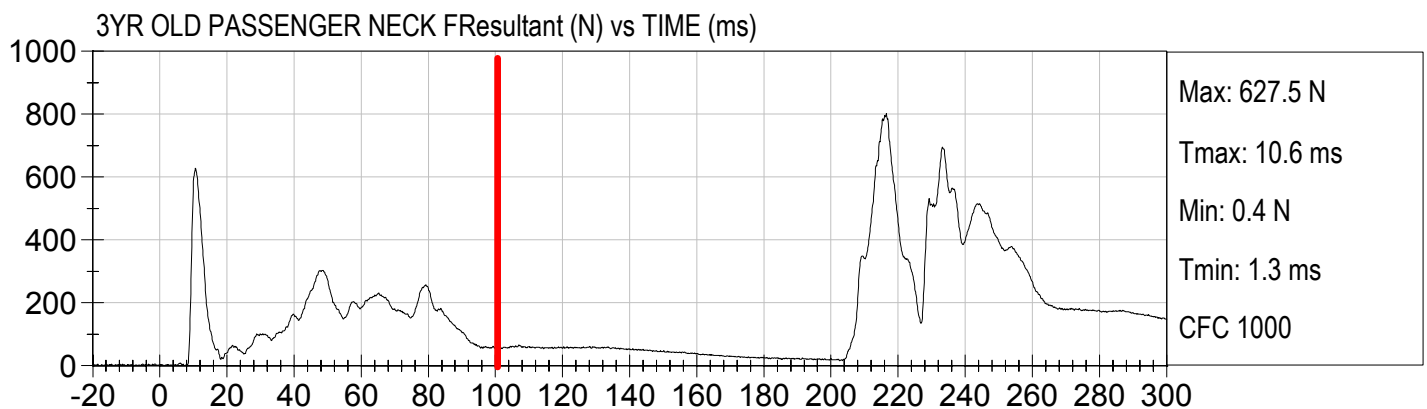
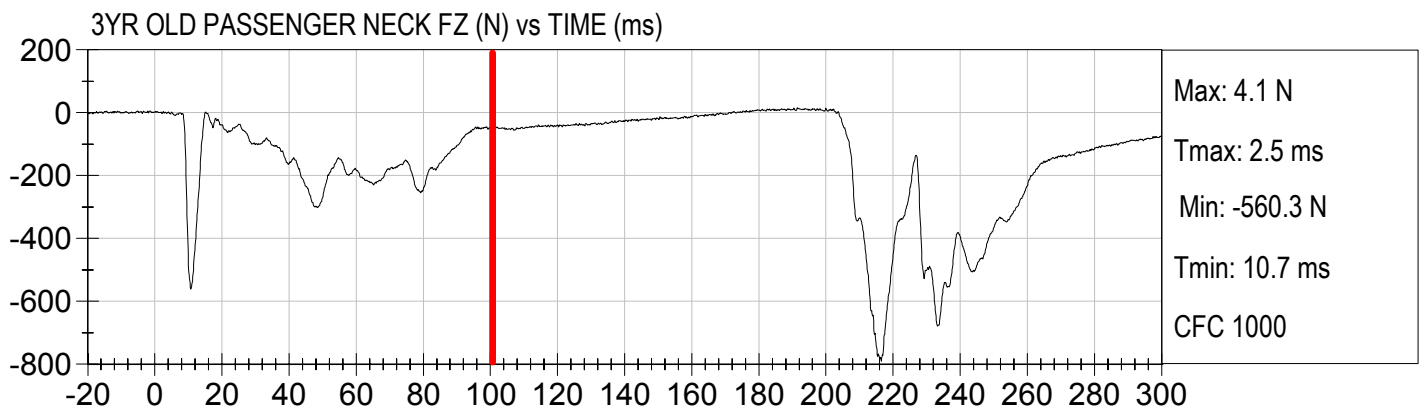
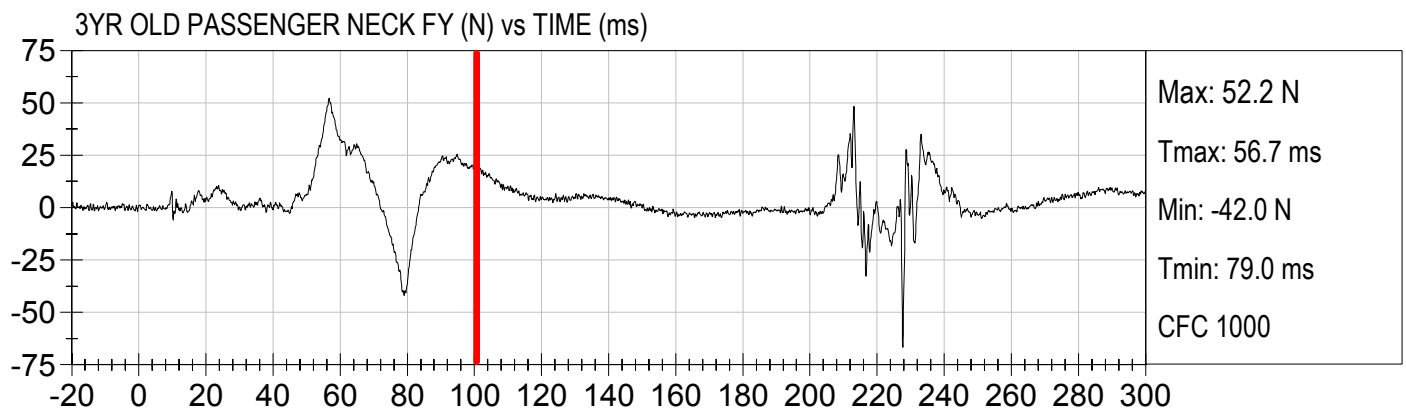
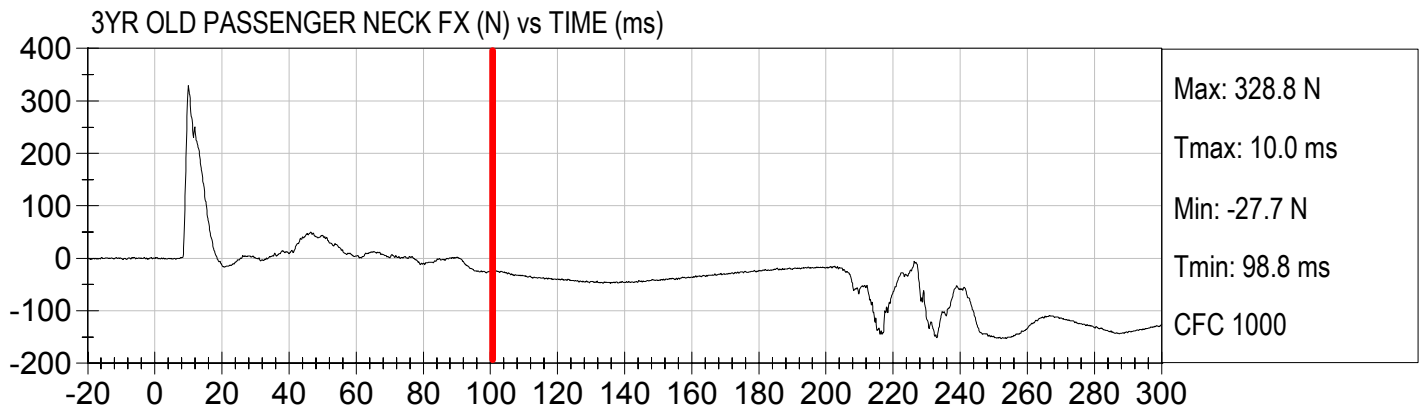




LOW RISK DEPLOYMENT  
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Test Date: 04/20/05  
Speed: 0.0 mph ( 0.0 km/h)

Injury Values Calculated between 0ms and 100ms



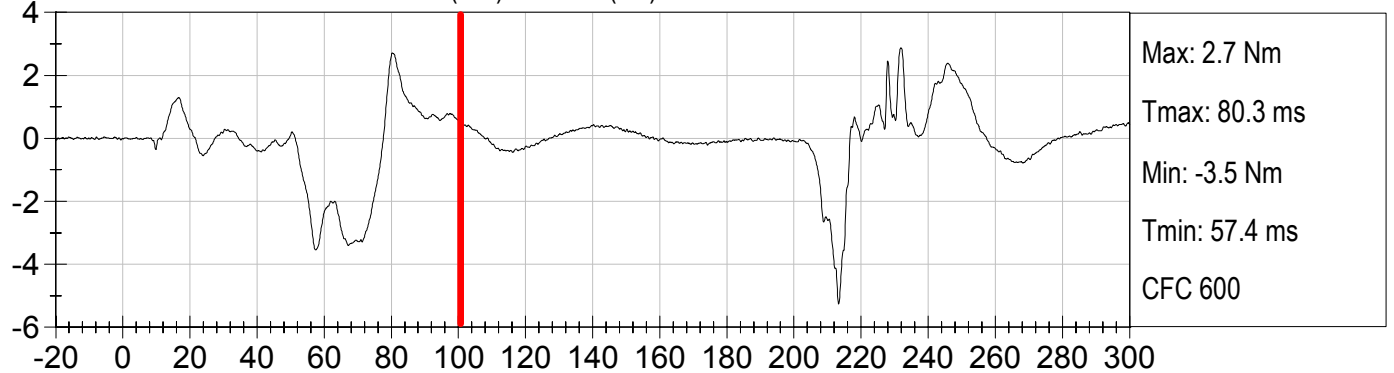


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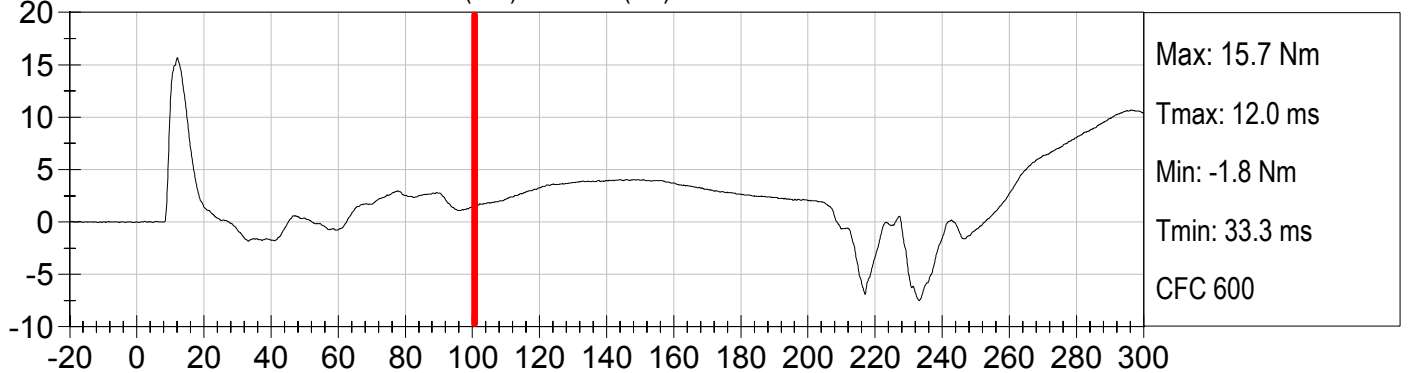
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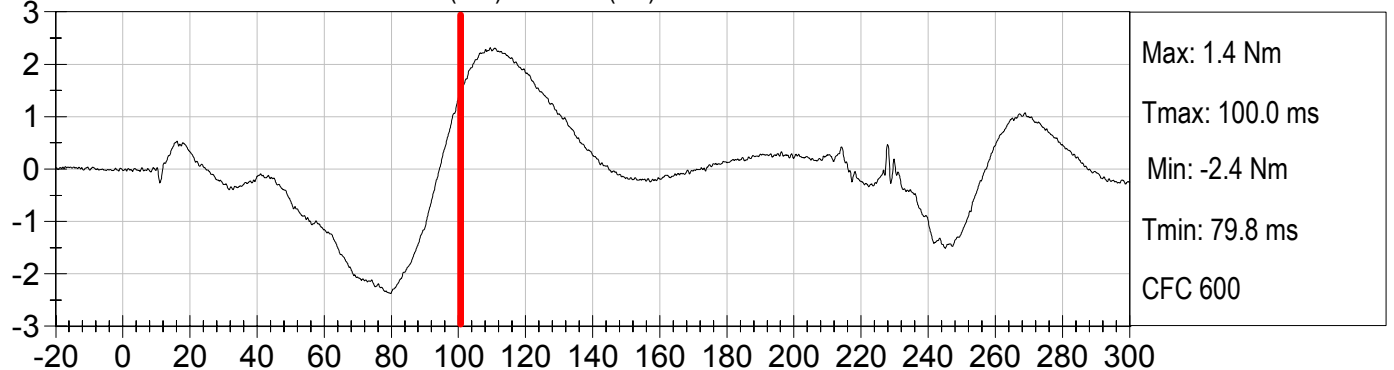
3YR OLD PASSENGER NECK MX (Nm) vs TIME (ms)



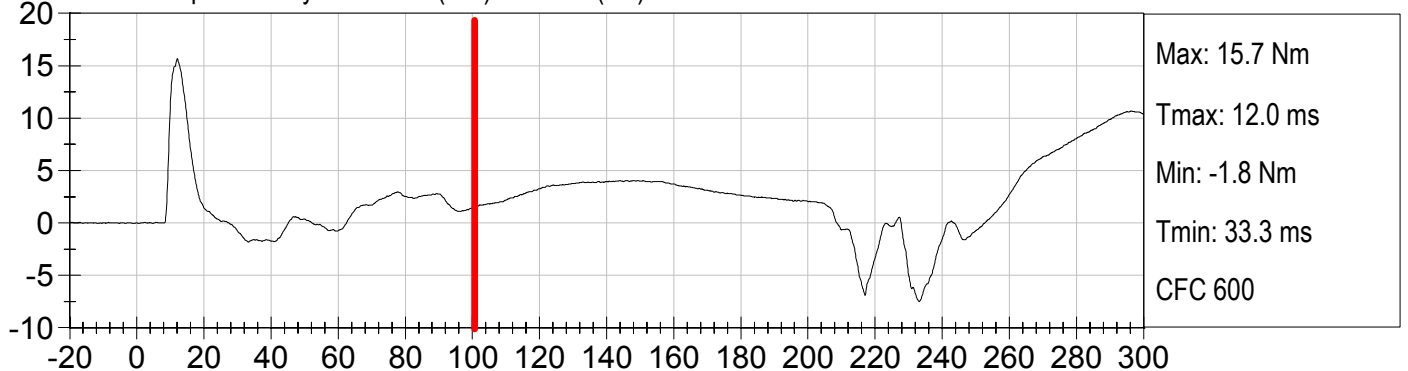
3YR OLD PASSENGER NECK MY (Nm) vs TIME (ms)



3YR OLD PASSENGER NECK MZ (Nm) vs TIME (ms)



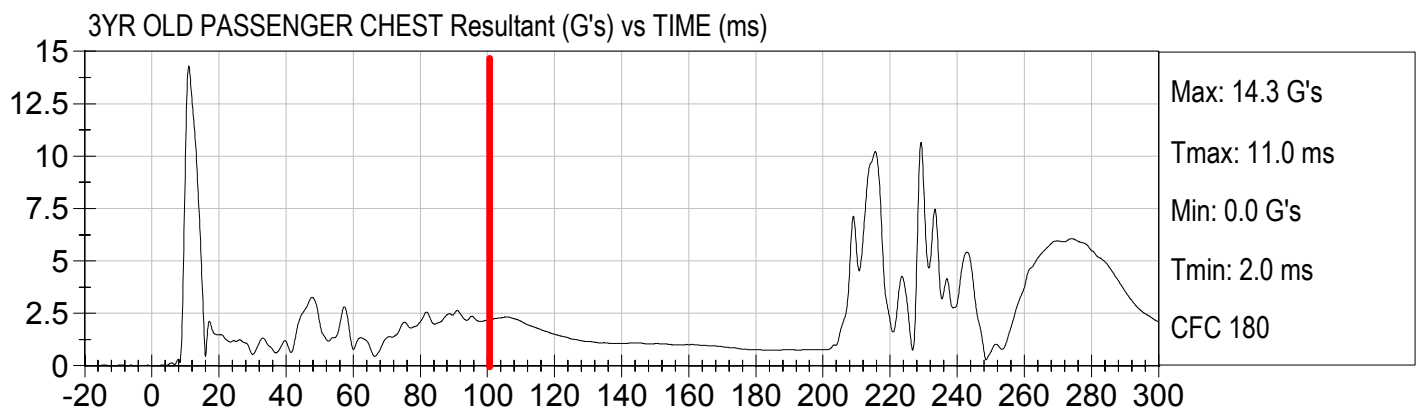
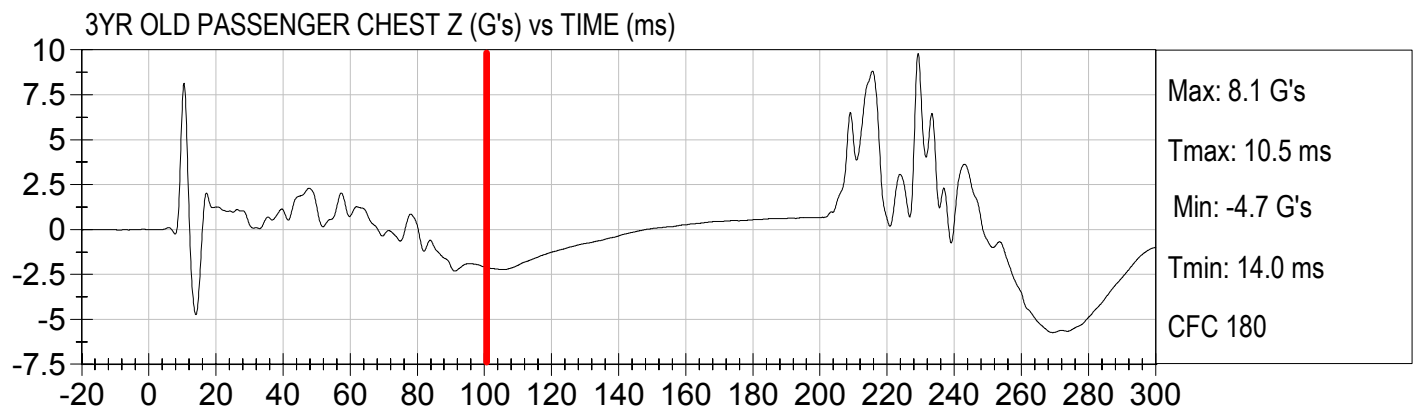
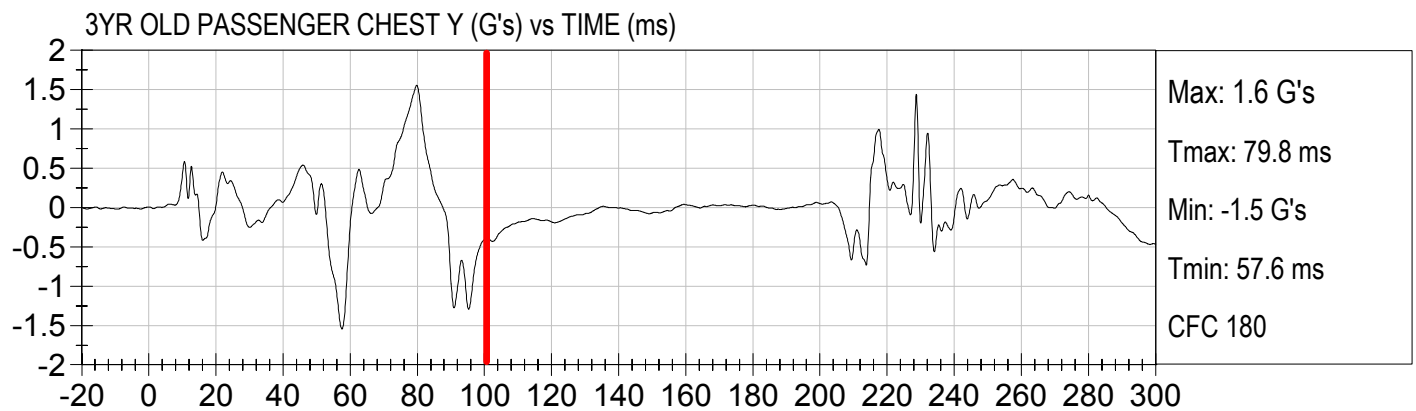
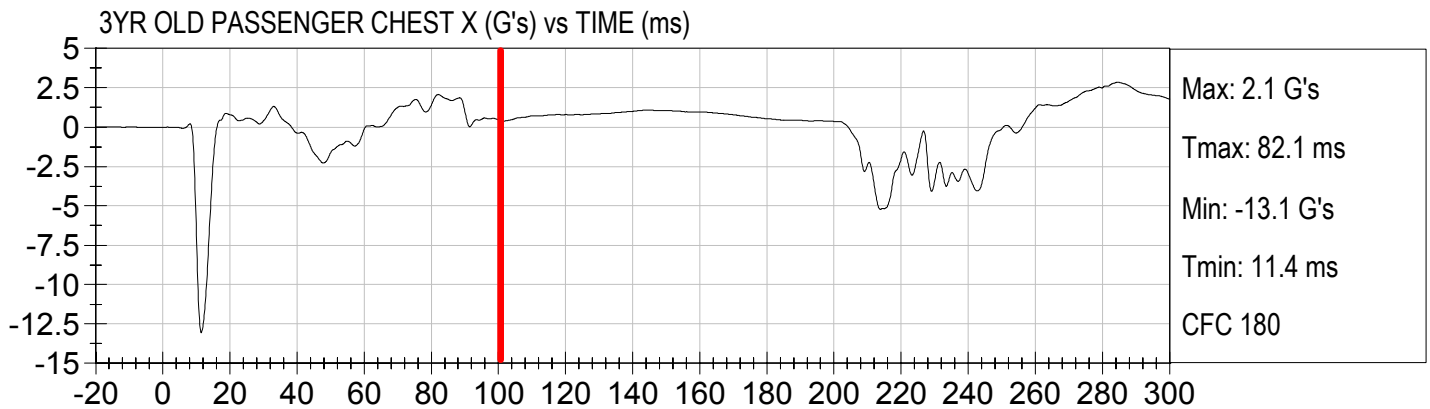
Pass. Occipital Condyle Moment (Nm) vs TIME (ms)







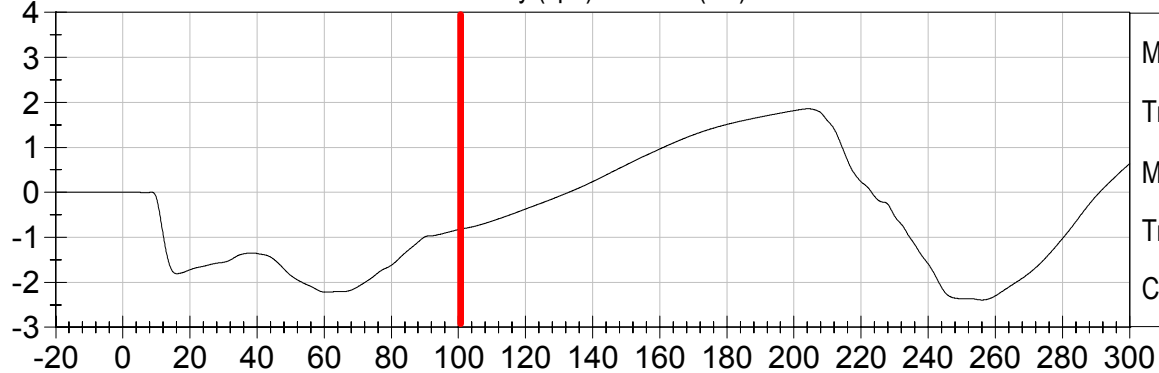
Injury Values Calculated between 0ms and 100ms





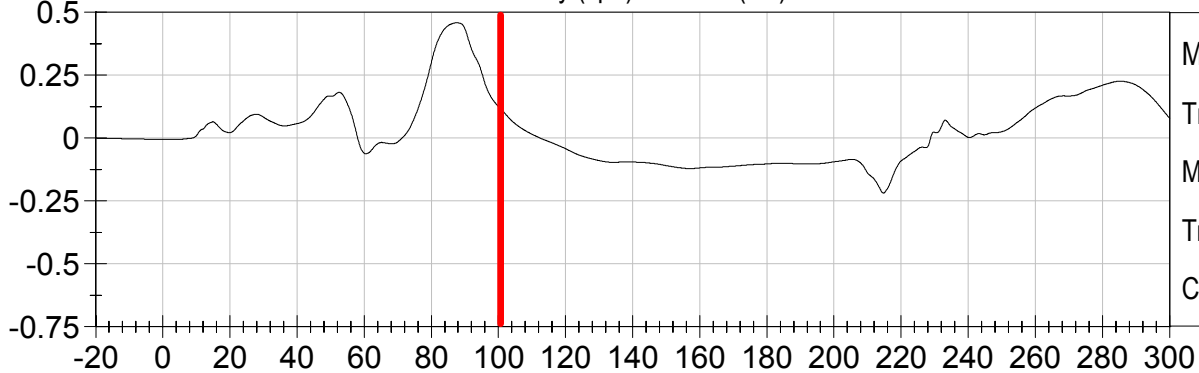
Injury Values Calculated between 0ms and 100ms

3YR OLD PASSENGER CHEST X Velocity (kph) vs TIME (ms)



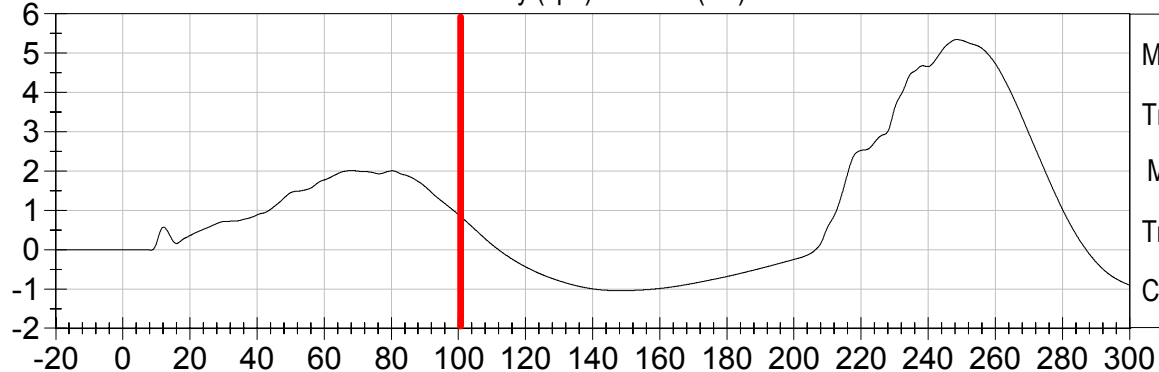
Max: 0.0 kph  
Tmax: 8.6 ms  
Min: -2.2 kph  
Tmin: 60.3 ms  
CFC 180

3YR OLD PASSENGER CHEST Y Velocity (kph) vs TIME (ms)



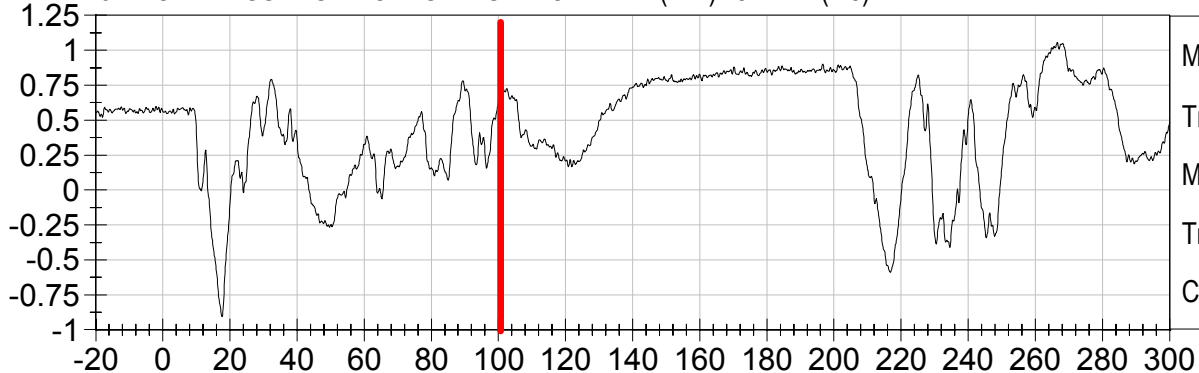
Max: 0.5 kph  
Tmax: 87.6 ms  
Min: -0.1 kph  
Tmin: 60.5 ms  
CFC 180

3YR OLD PASSENGER CHEST Z Velocity (kph) vs TIME (ms)



Max: 2.0 kph  
Tmax: 68.2 ms  
Min: -0.0 kph  
Tmin: 8.4 ms  
CFC 180

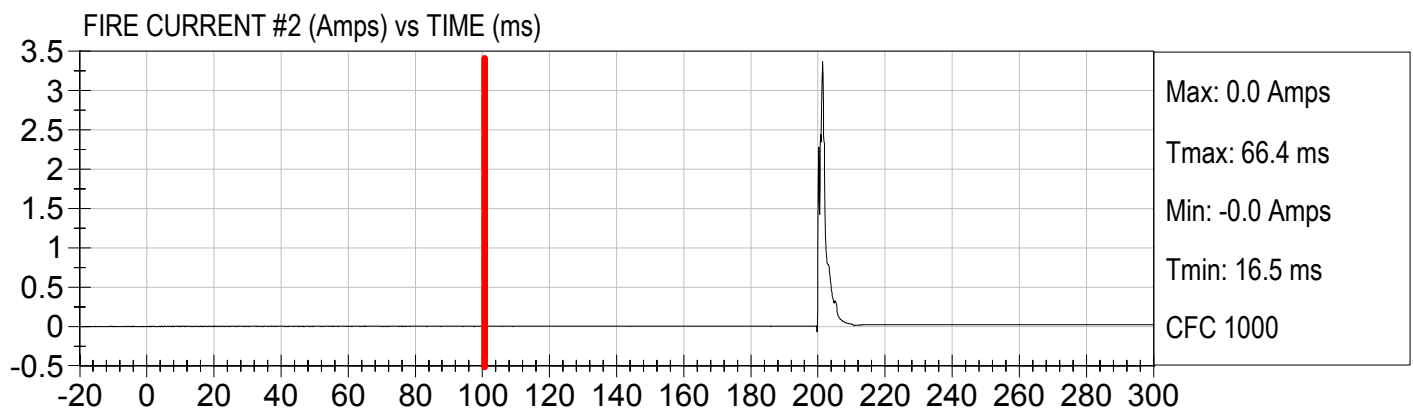
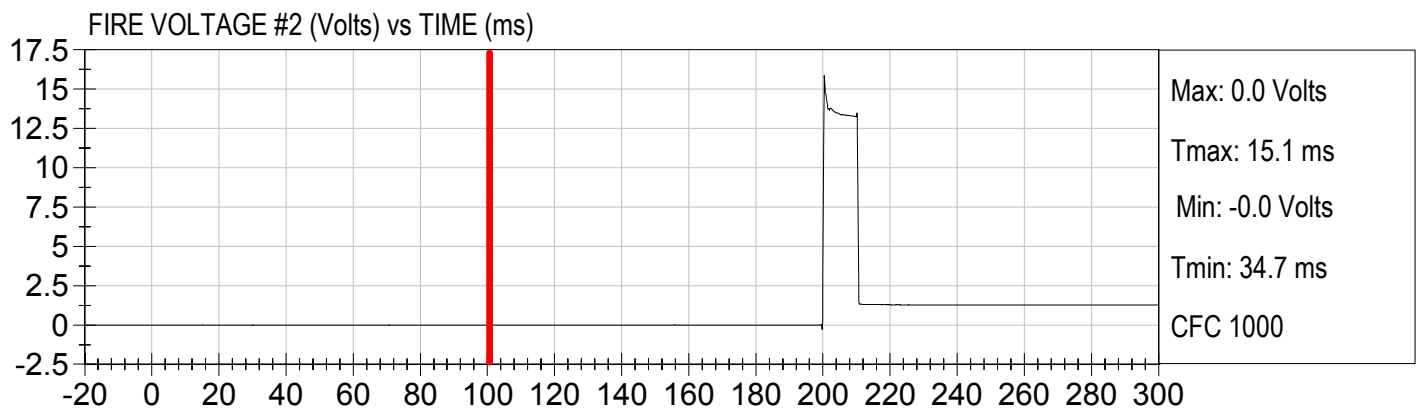
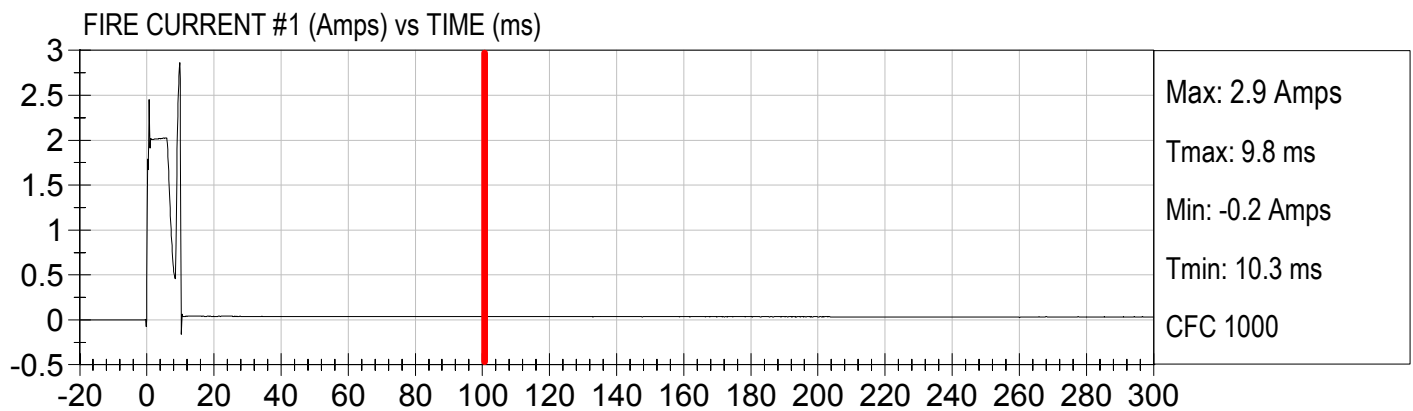
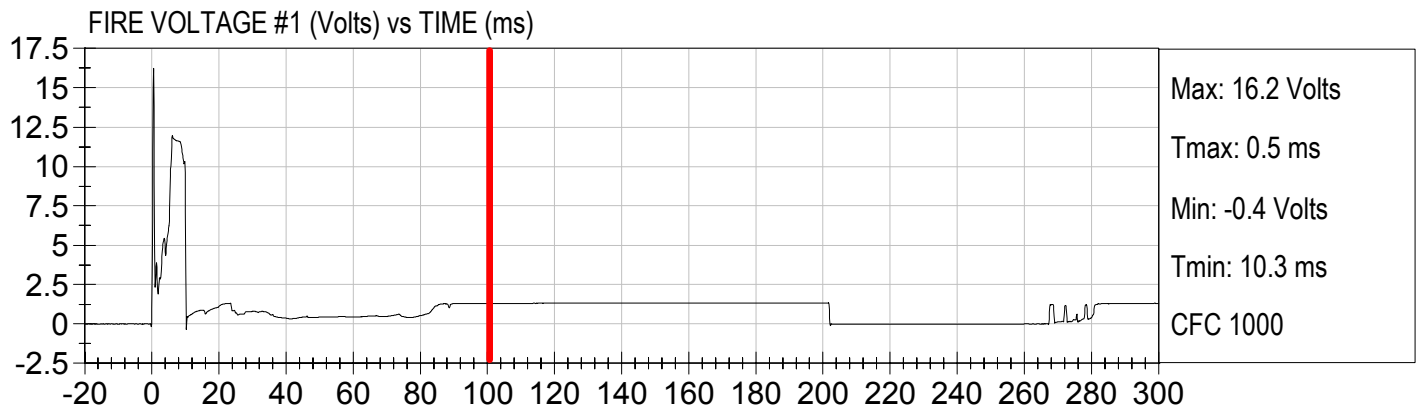
3YR OLD PASSENGER CHEST DISPLACEMENT (mm) vs TIME (ms)

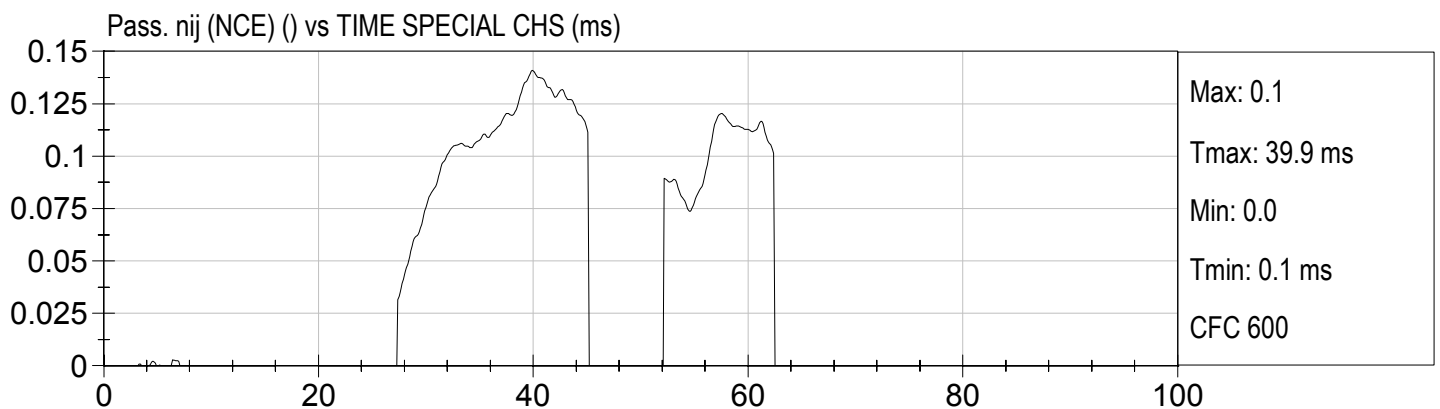
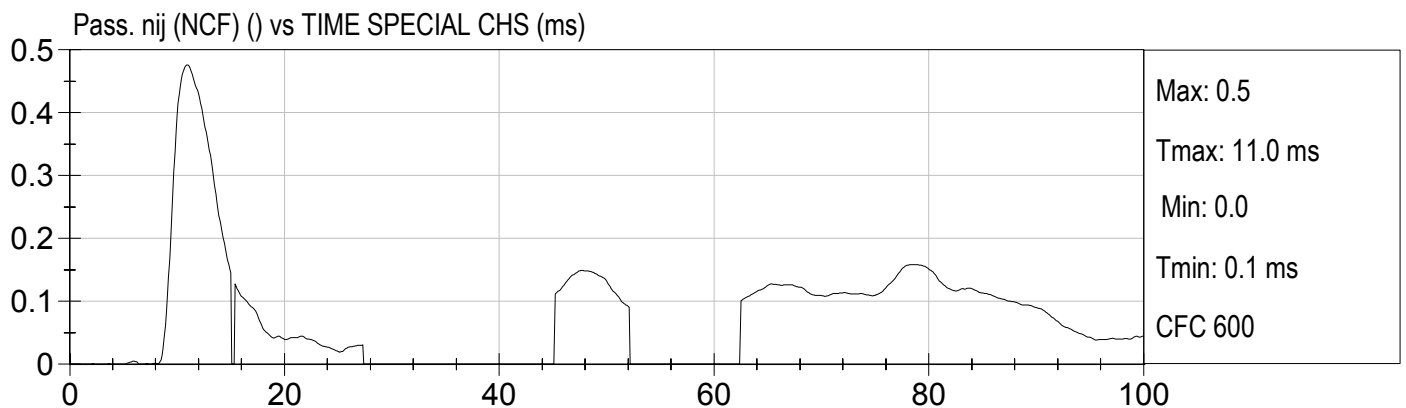
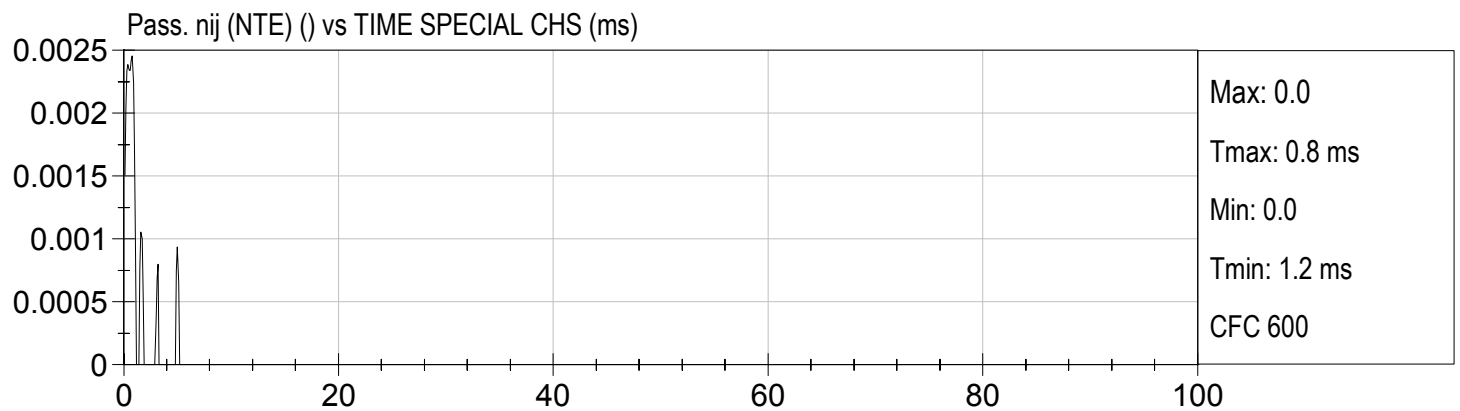
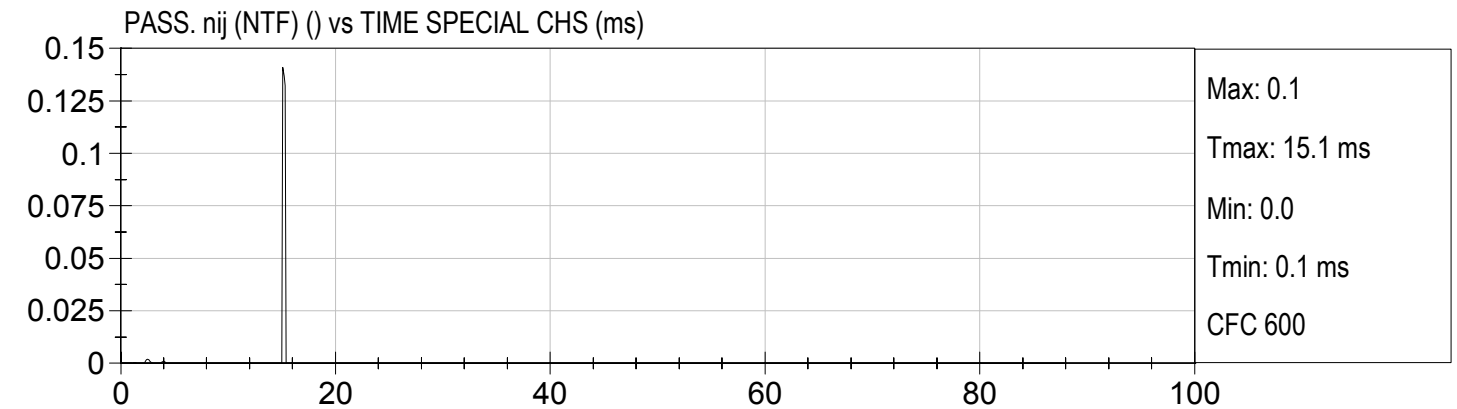


Max: 0.8 mm  
Tmax: 32.3 ms  
Min: -0.9 mm  
Tmin: 17.6 ms  
CFC 600



Injury Values Calculated between 0ms and 100ms





**APPENDIX B**  
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Vehicle Certification Label

**VEHICLE TIRE INFORMATION**

Mercedes-Benz

VEHICLE CAPACITY WEIGHT	392 KG (865 LBS)	
SEATING CAPACITY	FRONT 2	REAR 3
COLD TIRE PRESSURE	FRONT 28 PSI	REAR 32 PSI
RECOMMENDED TIRE SIZE	FRONT	REAR
SUMMER TIRE	225/45 R17 91W	245/40 R17 91W
	225/45 R17 91Y	245/40 R17 91Y
WINTER TIRE	225/45 R17 91H M&S (FRONT AND REAR)	

FOR ADDITIONAL INFORMATION SEE INSIDE FILLER PIPE COVER AND OWNER'S MANUAL.

 A 203 584 65 17

1374492

Tire Placard





Pre-Test 5th Fem. P1 Trail 1 Driver Dummy Left Side View (Door Open)





Post-Test 5th Fem. P1 Trial 1 Driver Dummy Left Side View (Door Open)





Pre-Test 5th Fem. P1 Trial 1 Driver Dummy Right Side View (Door Open)





Post-Test 5th Fem. P1 Trial 1 Driver Dummy Right Side View (Door Open)



Pre-Test 5th Fem. P1 Trial 1 Driver Dummy Left Side Head Position View



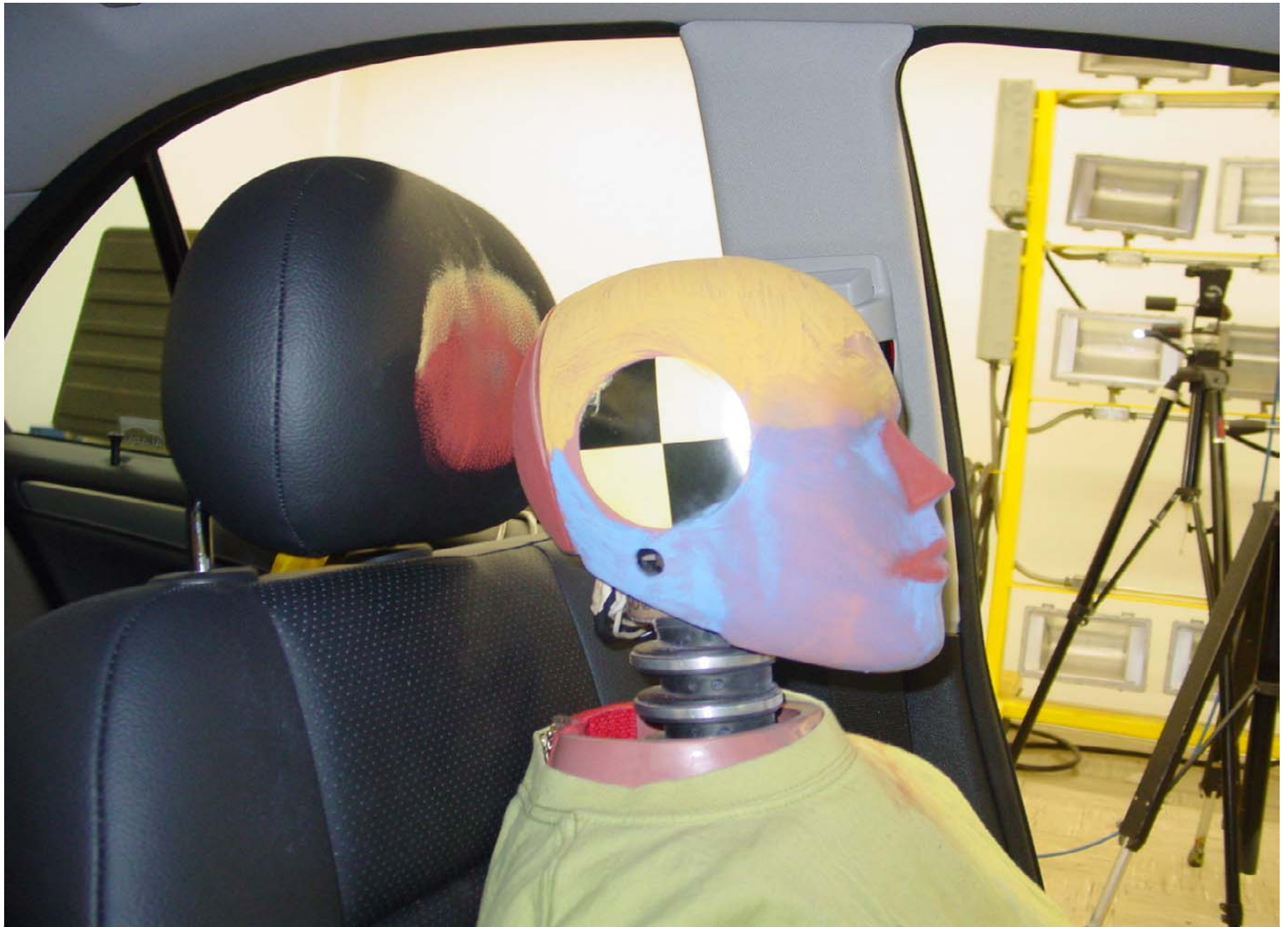


Post-Test 5th Fem. P1 Trial 1 Drive Dummy Left Side Head Position View



Pre-Test 5th Fem. P1 Trial 1 Driver Dummy Right Side Head Position View





Post-Test 5th Fem. P1 Trial 1 Driver Dummy Right Side Head Position View





Pre-Test 5th Fem. P1 Trial 1 Driver Dummy Left Side Mid Position View





Post-Test 5th Fem. P1 Trial 1 Driver Dummy Left Side Mid Position View





Pre-Test 5th Fem. P1 Trial 1 Driver Dummy Right Side Mid Position View





Post-Test 5th Fem. P1 Trial 1 Driver Dummy Right Side Mid Position View



Pre-Test 5th Fem. P1 Trial 1 Driver Dummy Left Side Knee Position View



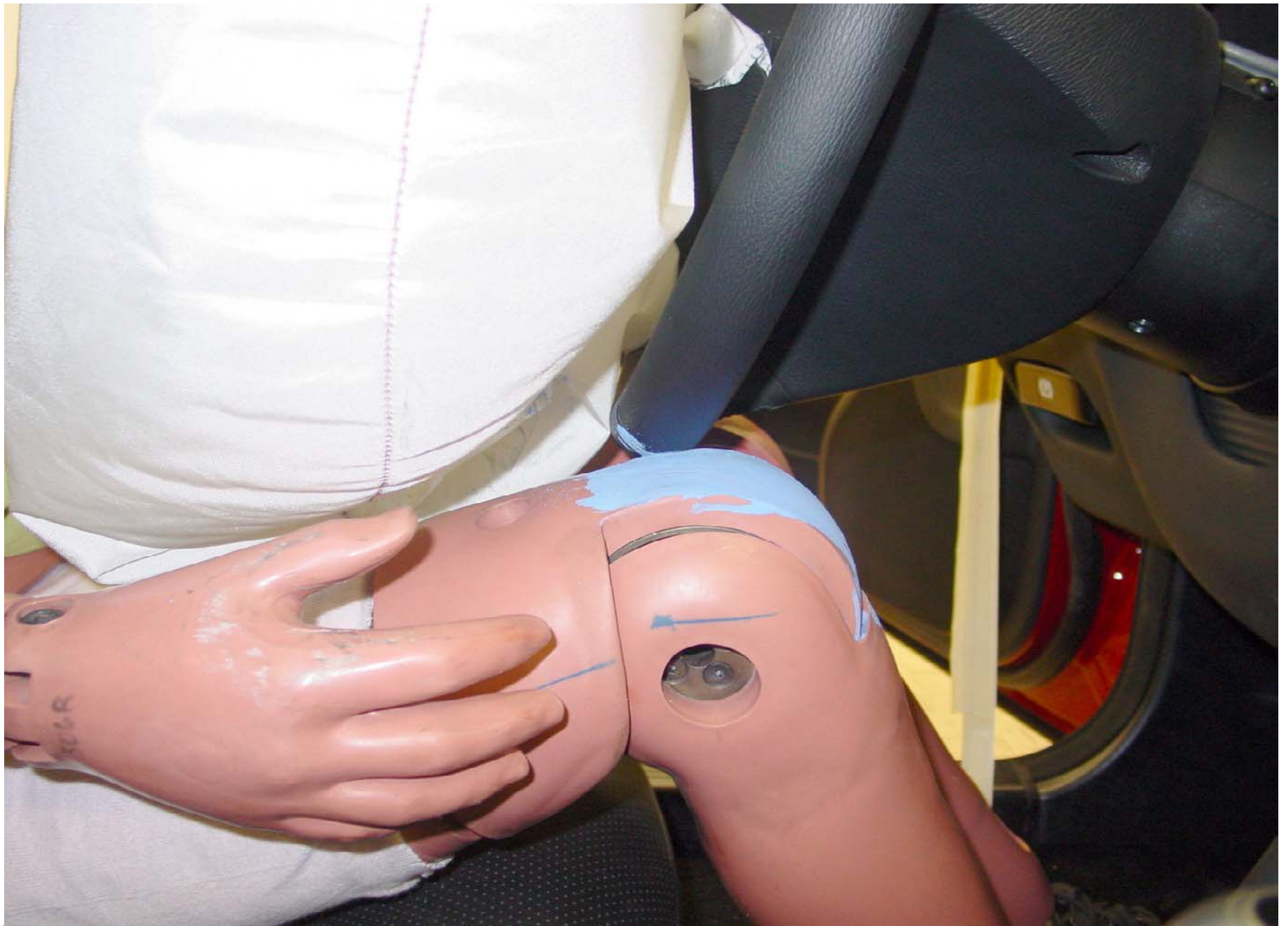


Post-Test 5th Fem. P1 Trial 1 Driver Dummy Left Side Knee Position View



Pre-Test 5th Fem. P1 Trial 1 Driver Dummy Right Side Knee Position View





Post-Test 5th Fem. P1 Trial 1 Driver Dummy Right Side Knee Position View





Post-Test 5th Fem. P1 Trial 1 Driver Dummy Airbag Left View



Post-Test 5th Fem. P1 Trial 1 Driver Dummy Airbag Right View





Pre-Test 5th Fem. P1 Trial 2 Driver Dummy Left Side View (Door Open)





Post-Test 5th Fem. P1 Trial 2 Driver Dummy Left Side View (Door Open)





Pre-Test 5th Fem. P1 Trial 2 Driver Dummy Right Side View (Door Open)





Post-Test 5th Fem. P1 Trial 2 Driver Dummy Right Side View (Door Open)



Pre-Test 5th Fem. P1 Trial 2 Driver Dummy Left Side Head Position View



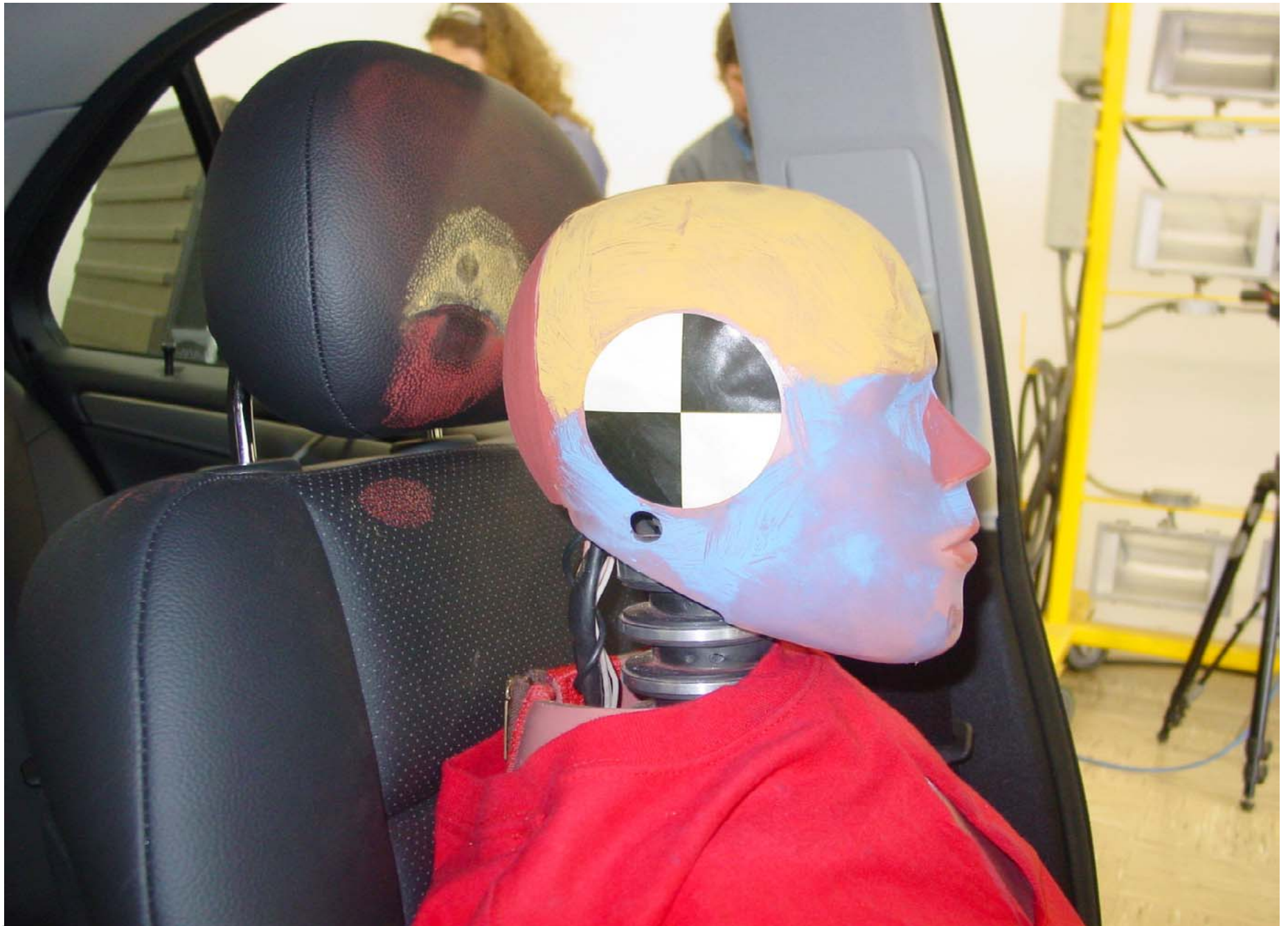


Post-Test 5th Fem. P1 Trial 2 Drive Dummy Left Side Head Position View





Pre-Test 5th Fem. P1 Trial 2 Driver Dummy Right Side Head Position View



Post-Test 5th Fem. P1 Trial 2 Driver Dummy Right Side Head Position View





Pre-Test 5th Fem. P1 Trial 2 Driver Dummy Left Side Mid Position View





Post-Test 5th Fem. P1 Trial 2 Driver Dummy Left Side Mid Position View





Pre-Test 5th Fem. P1 Trial 2 Driver Dummy Right Side Mid Position View





Post-Test 5th Fem. P1 Trial 2 Driver Dummy Right Side Mid Position View



Post-Test 5th Fem. P1 Trial 2 Driver Dummy Airbag Left View





Post-Test 5th Fem. P1 Trial 2 Driver Dummy Airbag Right View





Post-Test 5th Fem. P1 Trial 3 Driver Dummy Left Side View



Pre-Test 5th Fem. P1 Trial 3 Driver Dummy Left Side View (Door Open)





Post-Test 5th Fem. P1 Trial 3 Driver Dummy Left Side View (Door Open)



Pre-Test 5th Fem. P1 Trial 3 Driver Dummy Right Side View (Door Open)





Post-Test 5th Fem. P1 Trial 3 Driver Dummy Right Side View (Door Open)



Pre-Test 5th Fem. P1 Trial 3 Driver Dummy Left Side Head Position View





Post-Test 5th Fem. P1 Trial 3 Drive Dummy Left Side Head Position View





Pre-Test 5th Fem. P1 Trial 3 Driver Dummy Right Side Head Position View



Post-Test 5th Fem. P1 Trial 3 Driver Dummy Right Side Head Position View





Pre-Test 5th Fem. P1 Trial 3 Driver Dummy Left Side Mid Position View



Post-Test 5th Fem. P1 Trial 3 Driver Dummy Left Side Mid Position View



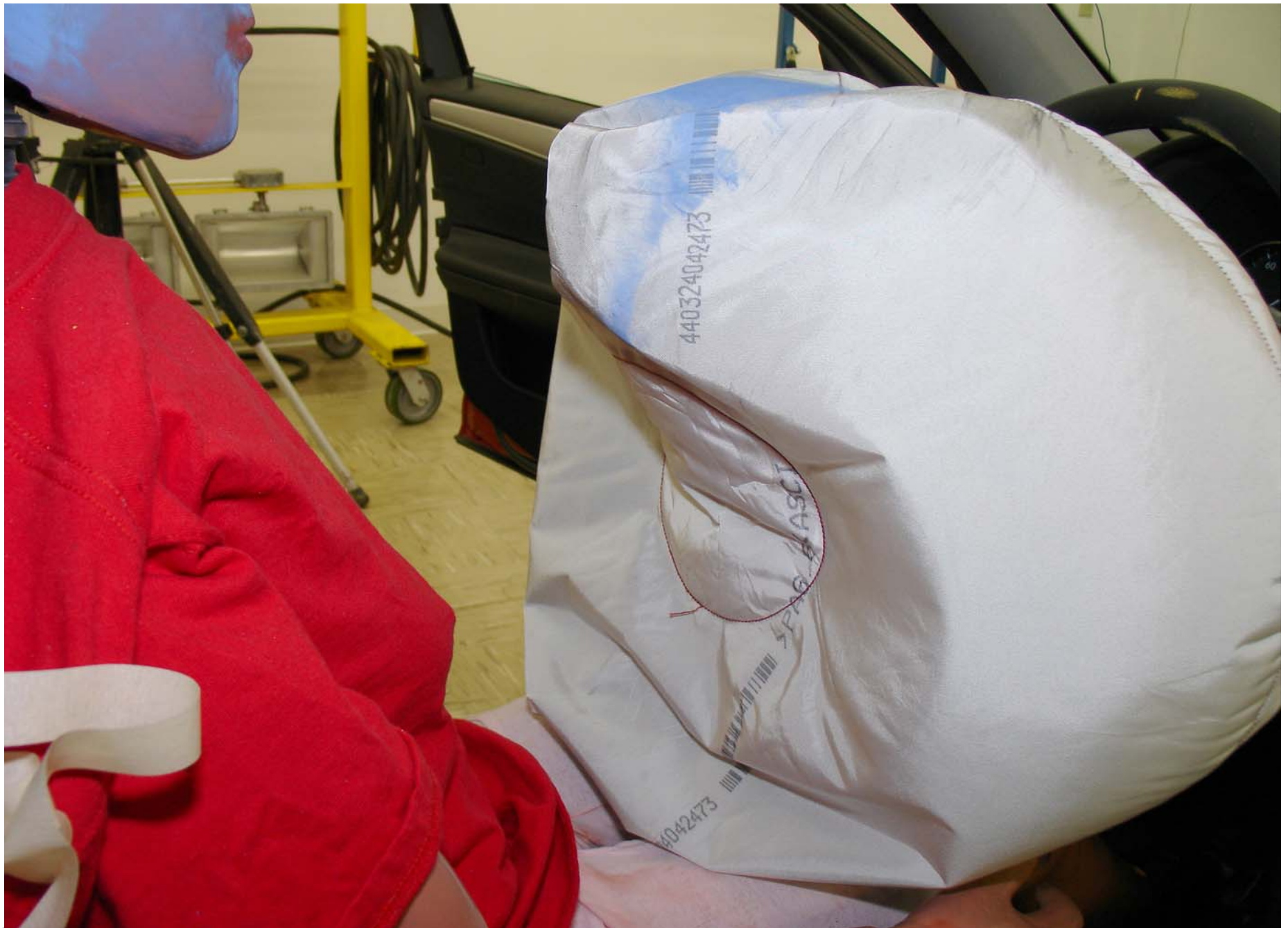


Pre-Test 5th Fem. P1 Trial 3 Driver Dummy Right Side Mid Position View



Post-Test 5th Fem. P1 Trial 3 Driver Dummy Airbag Left View





Post-Test 5th Fem. P1 Trial 3 Driver Dummy Airbag Right View





Pre-Test 5th Fem. P1 Trial 4 Driver Dummy Left Side View (Door Open)



Post-Test 5th Fem. P1 Trial 4 Driver Dummy Left Side View (Door Open)





Pre-Test 5th Fem. P1 Trial 4 Driver Dummy Right Side View (Door Open)



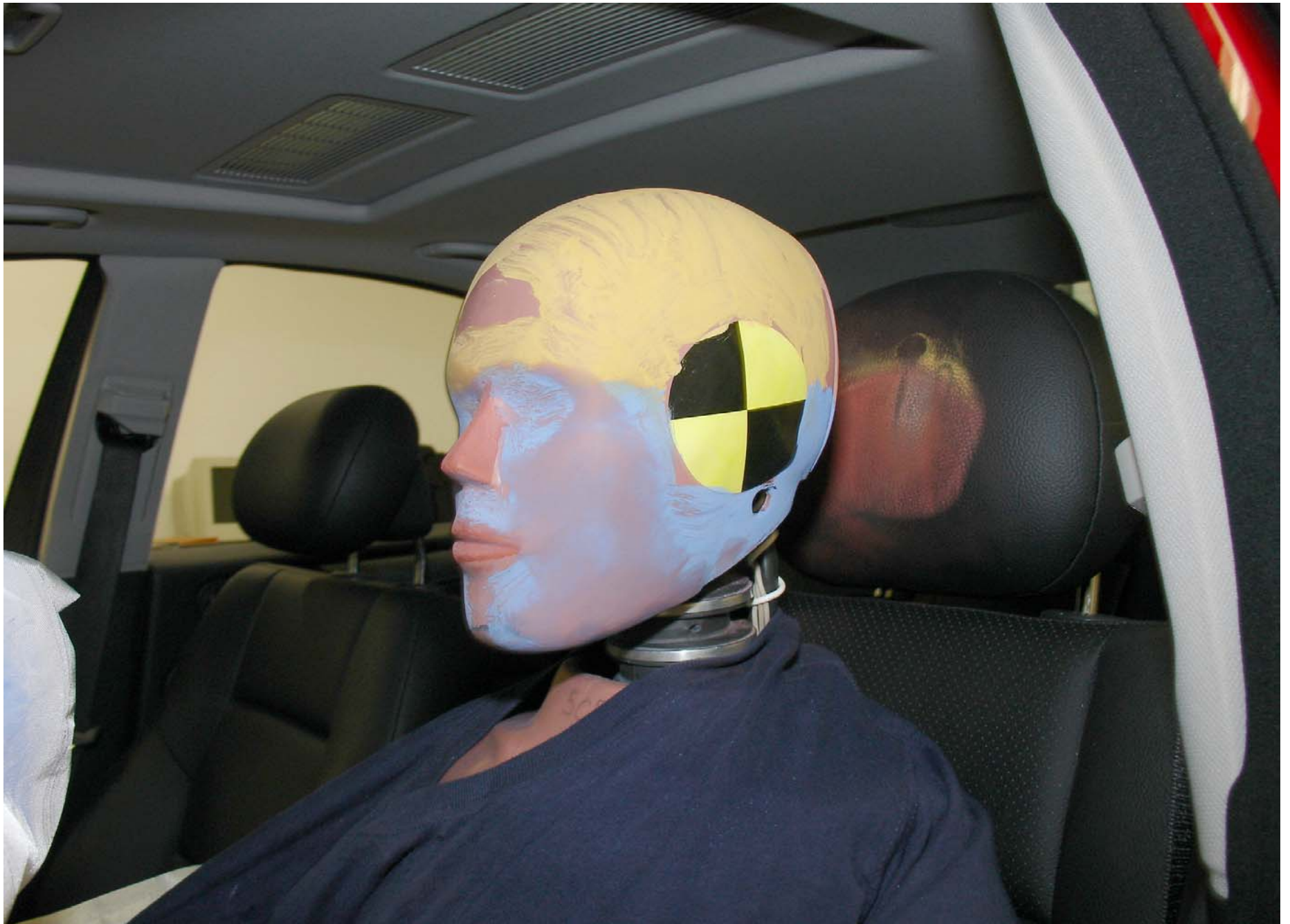


Post-Test 5th Fem. P1 Trial 4 Driver Dummy Right Side View (Door Open)



Pre-Test 5th Fem. P1 Trial 4 Driver Dummy Left Side Head Position View



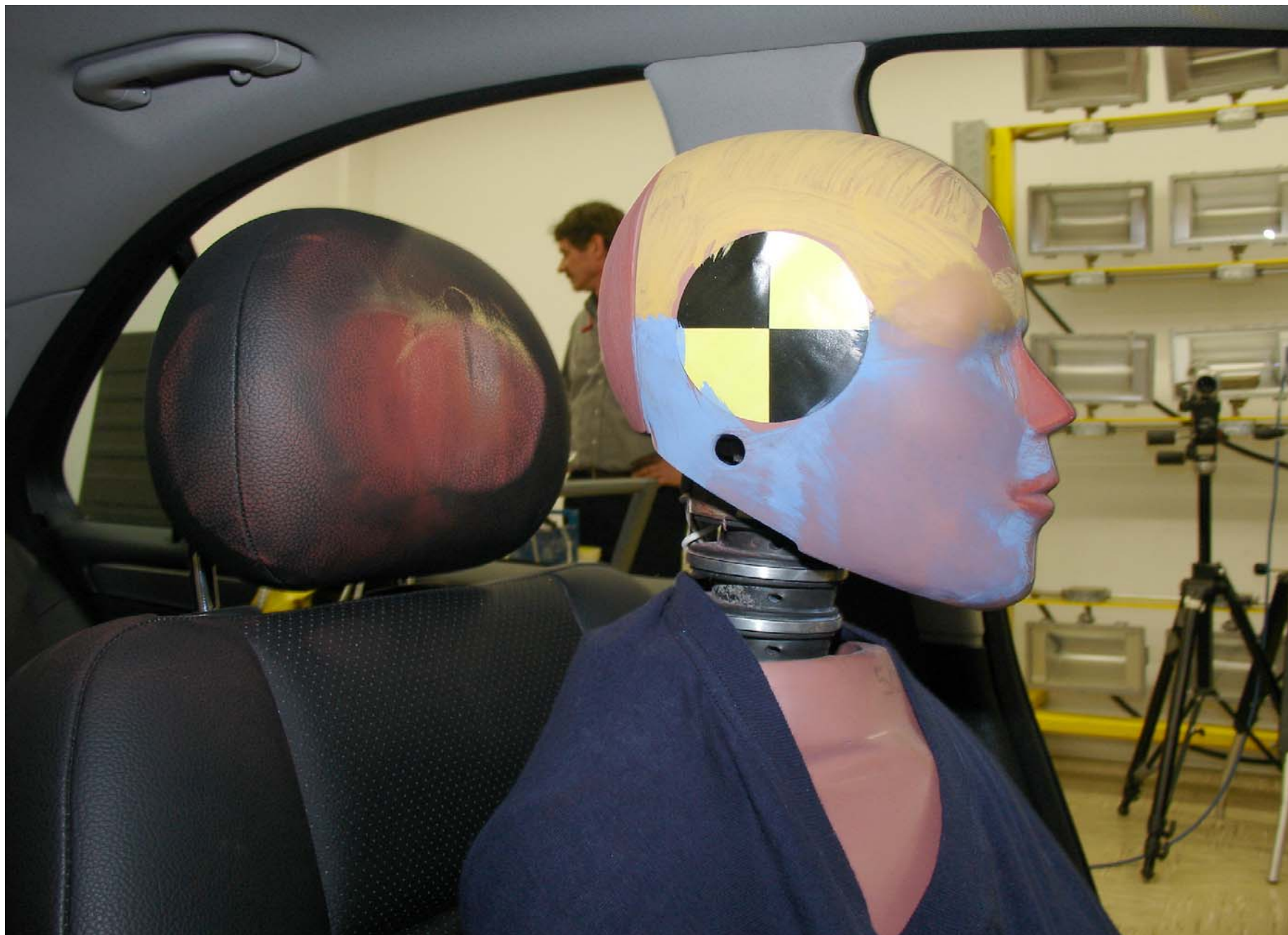


Post-Test 5th Fem. P1 Trial 4 Drive Dummy Left Side Head Position View



Pre-Test 5th Fem. P1 Trial 4 Driver Dummy Right Side Head Position View





Post-Test 5th Fem. P1 Trial 4 Driver Dummy Right Side Head Position View



Pre-Test 5th Fem. P1 Trial 4 Driver Dummy Left Side Mid Position View





Post-Test 5th Fem. P1 Trial 4 Driver Dummy Left Side Mid Position View





Pre-Test 5th Fem. P1 Trial 4 Driver Dummy Right Side Mid Position View



Post-Test 5th Fem. P1 Trial 4 Driver Dummy Right Side Mid Position View





Pre-Test 5th Fem. P1 Trial 4 Driver Dummy Left Side Knee Position View





Post-Test 5th Fem. P1 Trial 4 Driver Dummy Left Side Knee Position View



Pre-Test 5th Fem. P1 Trial 4 Driver Dummy Right Side Knee Position View





Post-Test 5th Fem. P1 Trial 4 Driver Dummy Right Side Knee Position View



Post-Test 5th Fem. P1 Trial 4 Driver Dummy Airbag Left View





Post-Test 5th Fem. P1 Trial 4 Driver Dummy Airbag Right View



Pre-Test 5th Fem. P1 Trial 5 Driver Dummy Left Side View (Door Open)





Post-Test 5th Fem. P1 Trial 5 Driver Dummy Left Side View (Door Open)





Pre-Test 5th Fem. P1 Trial 5 Driver Dummy Right Side View (Door Open)





Post-Test 5th Fem. P1 Trial 5 Driver Dummy Right Side View (Door Open)



Pre-Test 5th Fem. P1 Trial 5 Driver Dummy Left Side Head Position View





Post-Test 5th Fem. P1 Trial 5 Drive Dummy Left Side Head Position View



Pre-Test 5th Fem. P1 Trial 5 Driver Dummy Right Side Head Position View





Post-Test 5th Fem. P1 Trial 5 Driver Dummy Right Side Head Position View



Pre-Test 5th Fem. P1 Trial 5 Driver Dummy Left Side Mid Position View





Post-Test 5th Fem. P1 Trial 5 Driver Dummy Left Side Mid Position View





Pre-Test 5th Fem. P1 Trial 5 Driver Dummy Right Side Mid Position View



Post-Test 5th Fem. P1 Trial 5 Driver Dummy Right Side Mid Position View





Pre-Test 5th Fem. P1 Trial 5 Driver Dummy Left Side Knee Position View

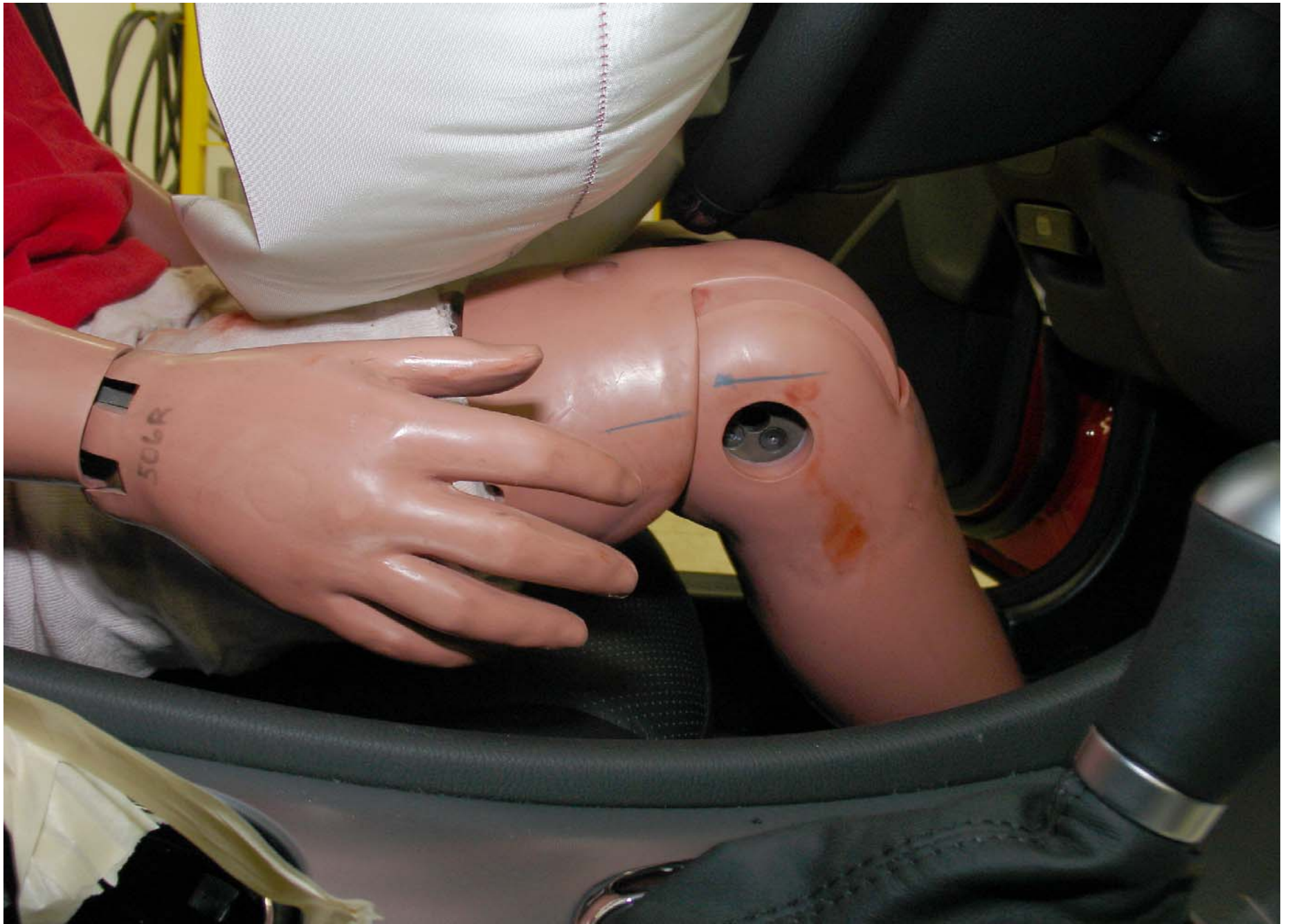




Post-Test 5th Fem. P1 Trial 5 Driver Dummy Left Side Knee Position View







Post-Test 5th Fem. P1 Trial 5 Driver Dummy Right Side Knee Position View



Post-Test 5th Fem. P1 Trial 5 Driver Dummy Airbag Left View





Post-Test 5th Fem. P1 Trial 5 Driver Dummy Airbag Right View





Pre-Test 5th Fem. P1 Trial 6 Driver Dummy Left Side View (Door Open)





Post-Test 5th Fem. P1 Trial 6 Driver Dummy Left Side View (Door Open)





Pre-Test 5th Fem. P1 Trial 6 Driver Dummy Right Side View (Door Open)





Post-Test 5th Fem. P1 Trial 6 Driver Dummy Right Side View (Door Open)



Pre-Test 5th Fem. P1 Trial 6 Driver Dummy Left Side Head Position View





Post-Test 5th Fem. P1 Trial 6 Drive Dummy Left Side Head Position View



Pre-Test 5th Fem. P1 Trial 6 Driver Dummy Right Side Head Position View



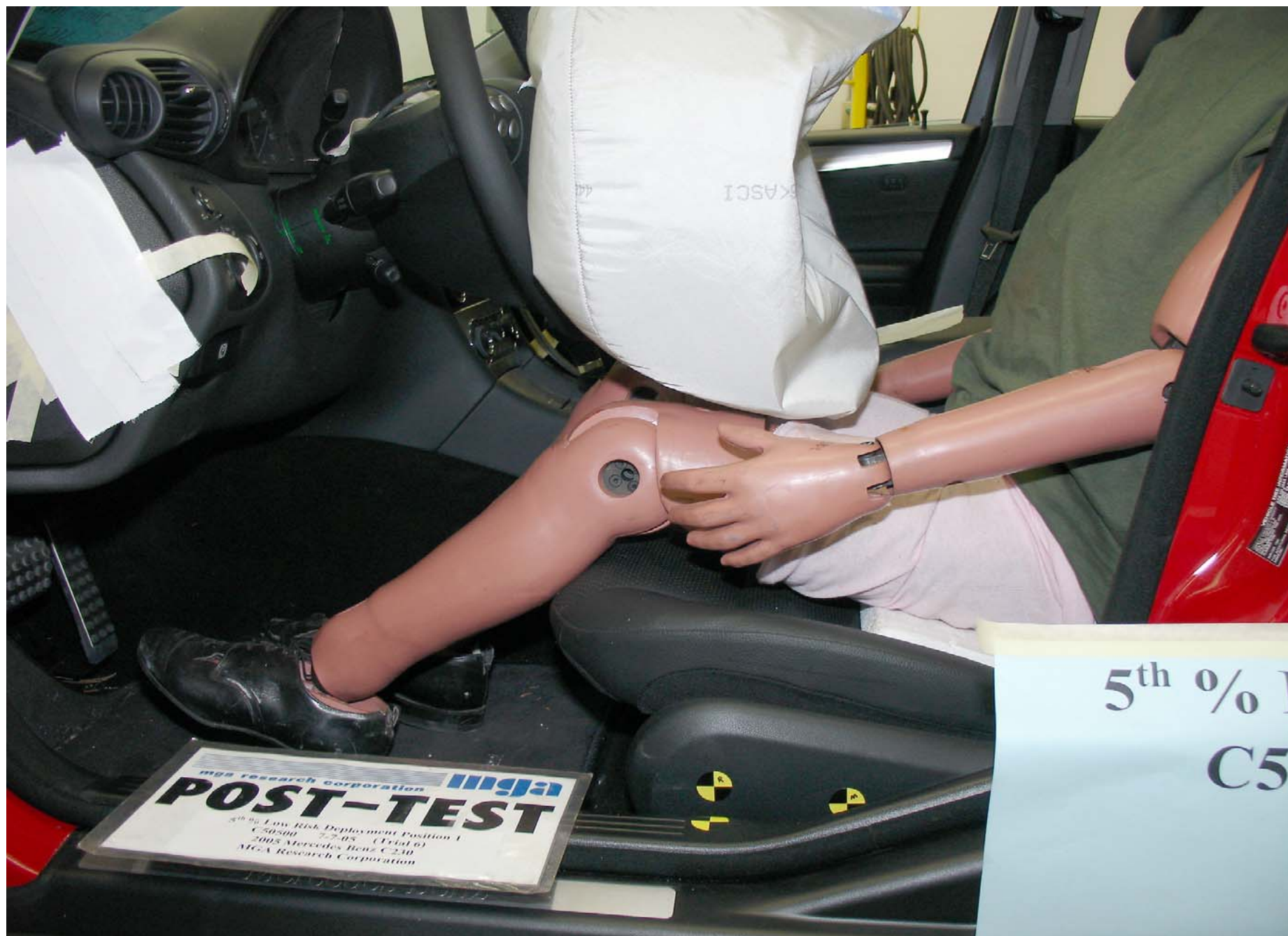


Post-Test 5th Fem. P1 Trial 6 Driver Dummy Right Side Head Position View



Pre-Test 5th Fem. P1 Trial 6 Driver Dummy Left Side Mid Position View





Post-Test 5th Fem. P1 Trial 6 Driver Dummy Left Side Mid Position View





Pre-Test 5th Fem. P1 Trial 6 Driver Dummy Right Side Mid Position View

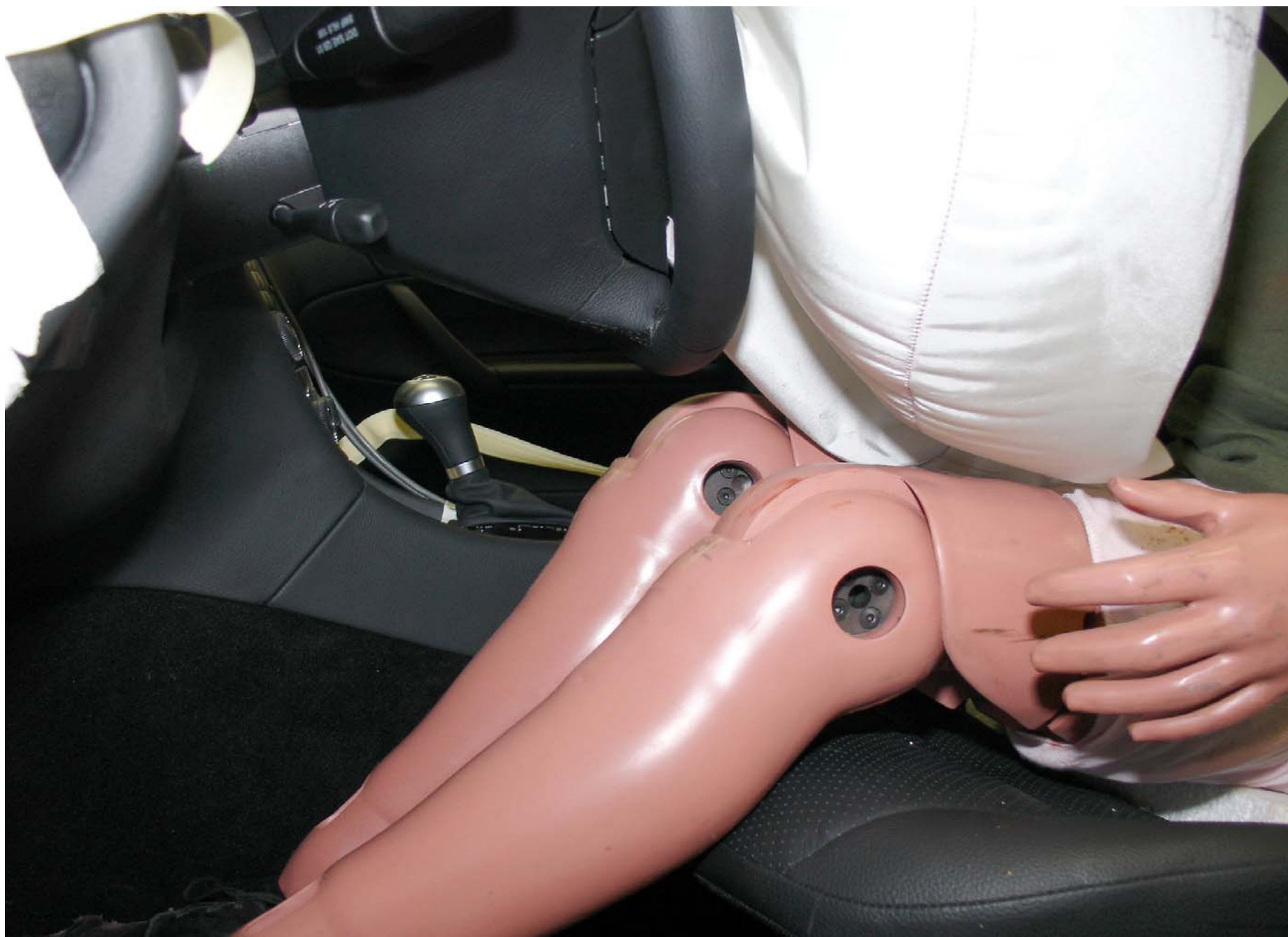


Post-Test 5th Fem. P1 Trial 6 Driver Dummy Right Side Mid Position View





Pre-Test 5th Fem. P1 Trial 6 Driver Dummy Left Side Knee Position View



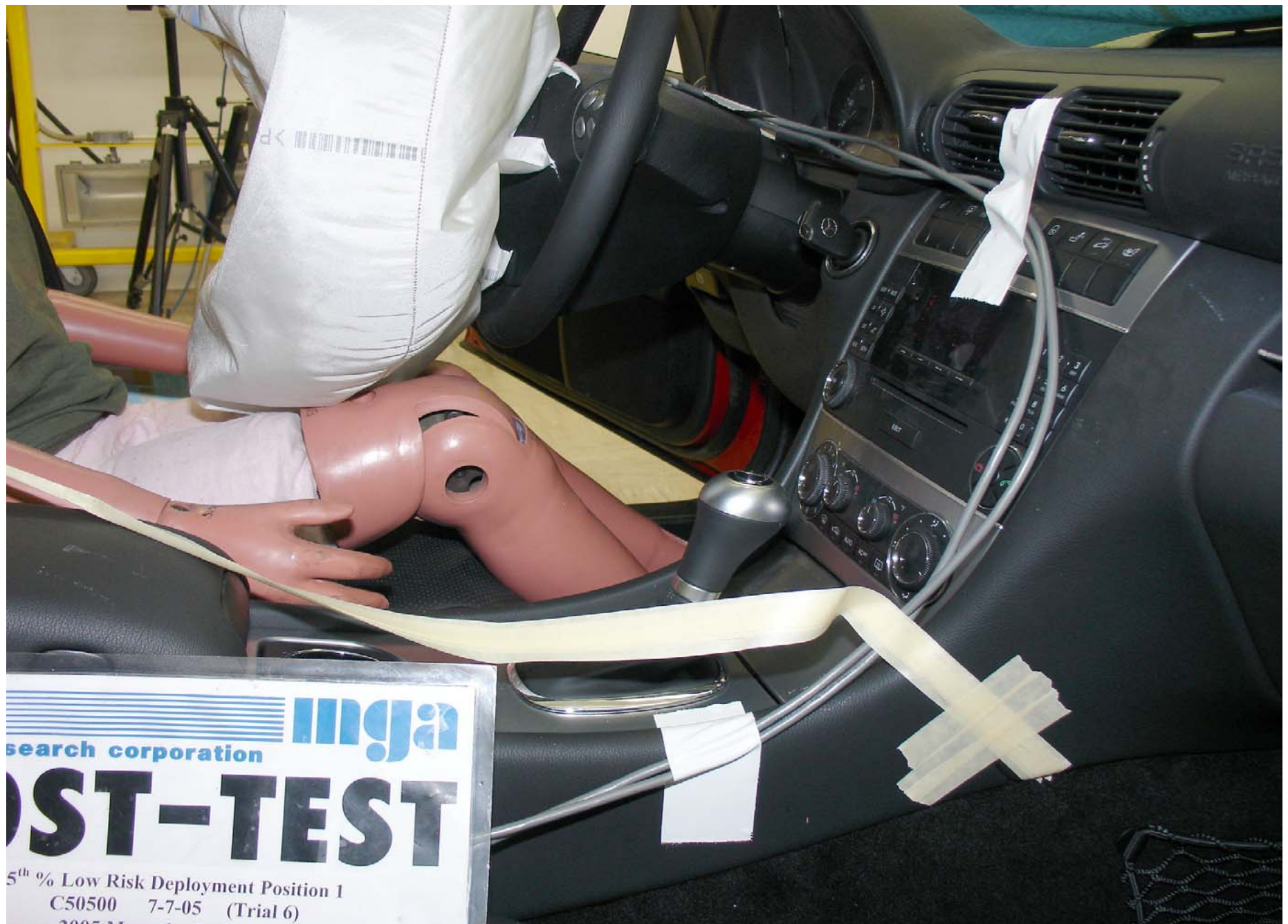
Post-Test 5th Fem. P1 Trial 6 Driver Dummy Left Side Knee Position View





Pre-Test 5th Fem. P1 Trial 6 Driver Dummy Right Side Knee Position View





Post-Test 5th Fem. P1 Trial 6 Driver Dummy Right Side Knee Position View



Post-Test 5th Fem. P1 Trial 6 Driver Dummy Airbag Left View





Post-Test 5th Fem. P1 Trial 6 Driver Dummy Airbag Right View



Pre-Test 5th Fem. P1 Trial 7 Driver Dummy Left Side View (Door Open)





Post-Test 5th Fem. P1 Trial 7 Driver Dummy Left Side View (Door Open)





Pre-Test 5th Fem. P1 Trial 7 Driver Dummy Right Side View (Door Open)





Post-Test 5th Fem. P1 Trial 7 Driver Dummy Right Side View (Door Open)



Pre-Test 5th Fem. P1 Trial 7 Driver Dummy Left Side Head Position View



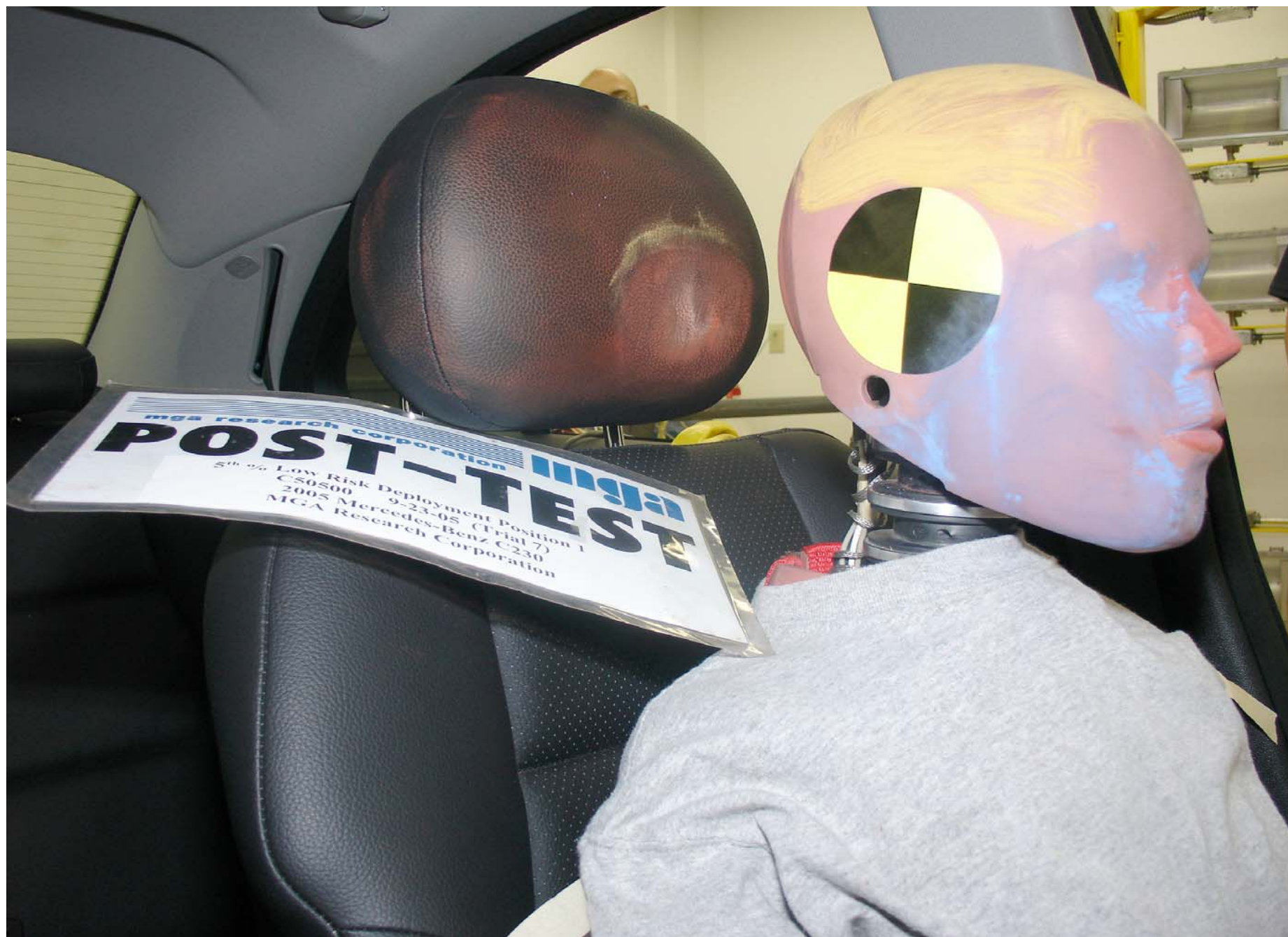


Post-Test 5th Fem. P1 Trial 7 Drive Dummy Left Side Head Position View

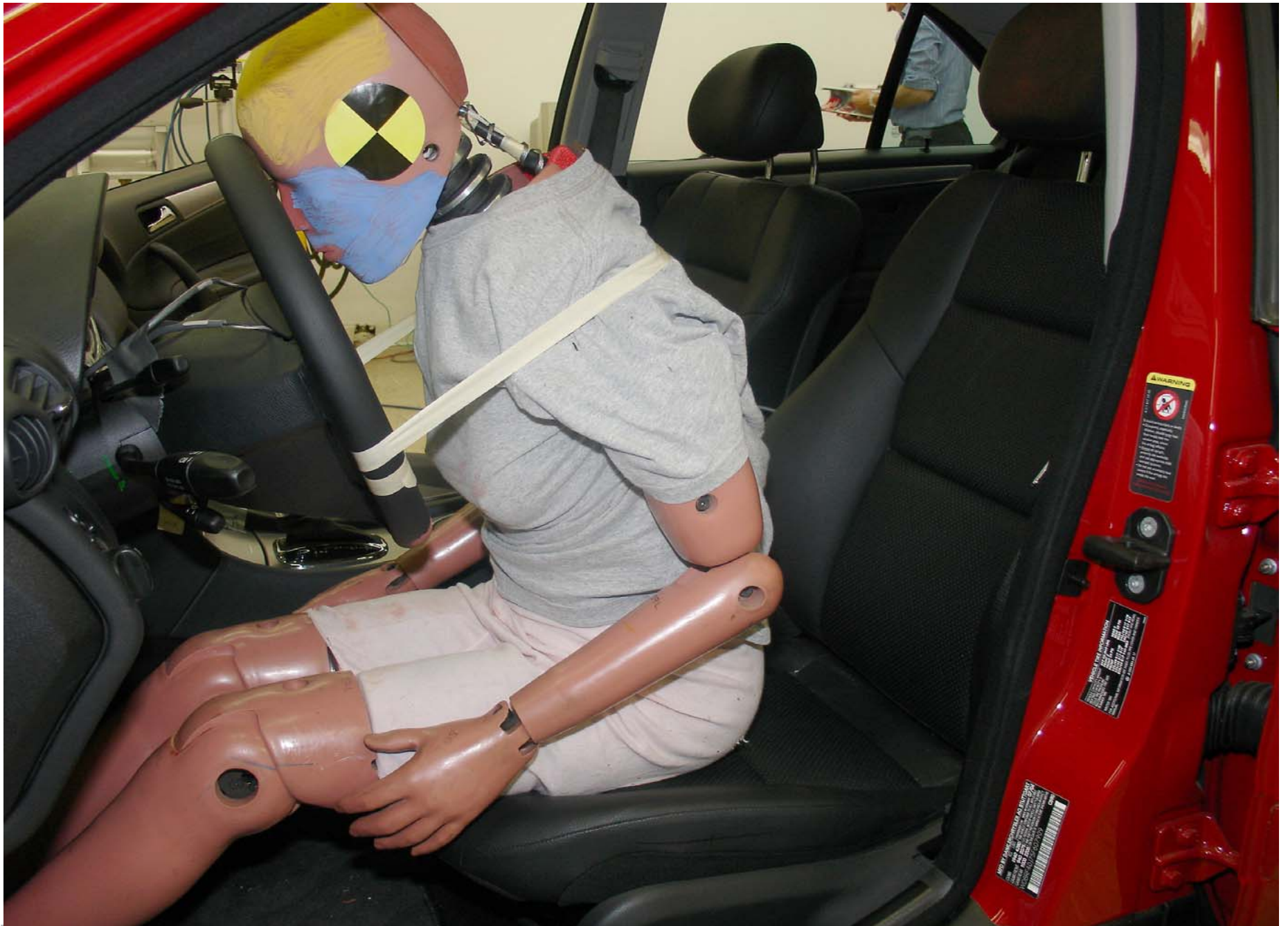


Pre-Test 5th Fem. P1 Trial 7 Driver Dummy Right Side Head Position View





Post-Test 5th Fem. P1 Trial 7 Driver Dummy Right Side Head Position View



Pre-Test 5th Fem. P1 Trial 7 Driver Dummy Left Side Mid Position View





Post-Test 5th Fem. P1 Trial 7 Driver Dummy Left Side Mid Position View



Pre-Test 5th Fem. P1 Trial 7 Driver Dummy Right Side Mid Position View





Post-Test 5th Fem. P1 Trial 7 Driver Dummy Right Side Mid Position View





Pre-Test 5th Fem. P1 Trial 7 Driver Dummy Left Side Knee Position View





Post-Test 5th Fem. P1 Trial 7 Driver Dummy Left Side Knee Position View



Pre-Test 5th Fem. P1 Trial 7 Driver Dummy Right Side Knee Position View





Post-Test 5th Fem. P1 Trial 7 Driver Dummy Airbag Left View 1





Post-Test 5th Fem. P1 Trial 7 Driver Dummy Airbag Left View 2





Pre-Test 5th Fem. P1 Trial 8 Driver Dummy Left Side View (Door Open)





Post-Test 5th Fem. P1 Trial 8 Driver Dummy Left Side View (Door Open)





Pre-Test 5th Fem. P1 Trial 8 Driver Dummy Right Side View (Door Open)





Post-Test 5th Fem. P1 Trial 8 Driver Dummy Right Side View (Door Open)



Pre-Test 5th Fem. P1 Trial 8 Driver Dummy Left Side Head Position View



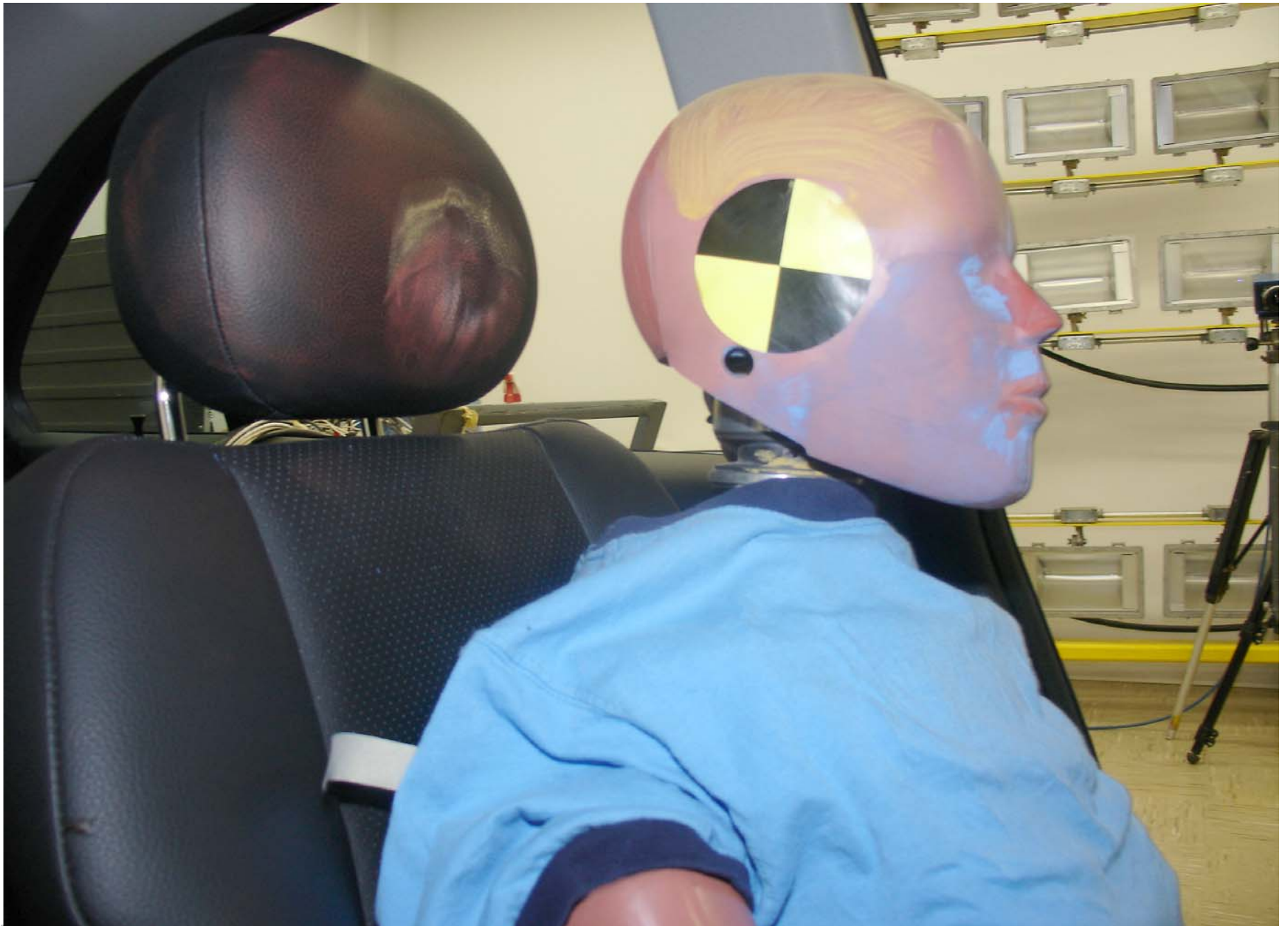


Post-Test 5th Fem. P1 Trial 8 Drive Dummy Left Side Head Position View



Pre-Test 5th Fem. P1 Trial 8 Driver Dummy Right Side Head Position View



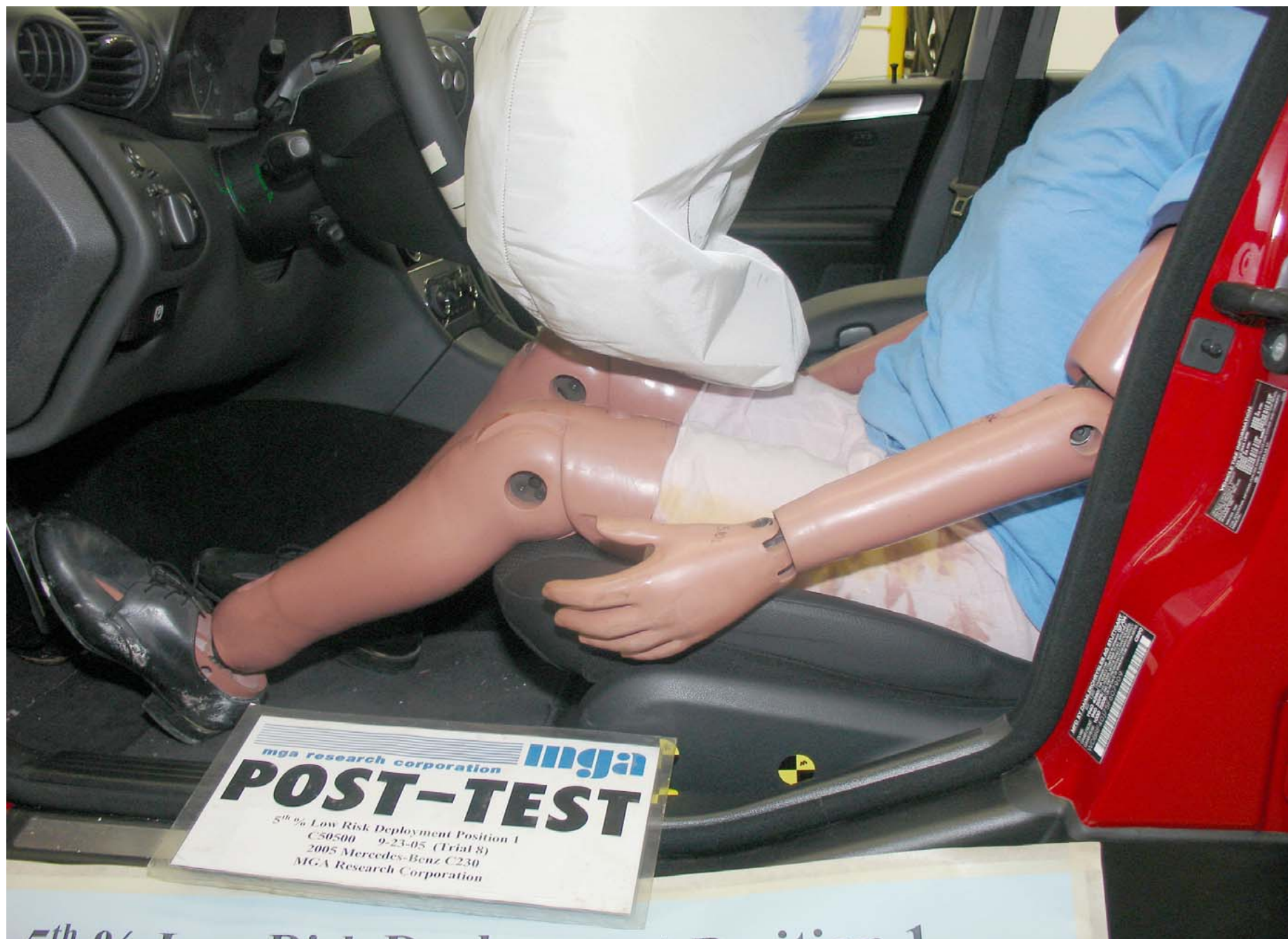


Post-Test 5th Fem. P1 Trial 8 Driver Dummy Right Side Head Position View



Pre-Test 5th Fem. P1 Trial 8 Driver Dummy Left Side Mid Position View





Post-Test 5th Fem. P1 Trial 8 Driver Dummy Left Side Mid Position View



Pre-Test 5th Fem. P1 Trial 8 Driver Dummy Right Side Mid Position View





Post-Test 5th Fem. P1 Trial 8 Driver Dummy Right Side Mid Position View



Post-Test 5th Fem. P1 Trial 8 Driver Dummy Airbag Left View



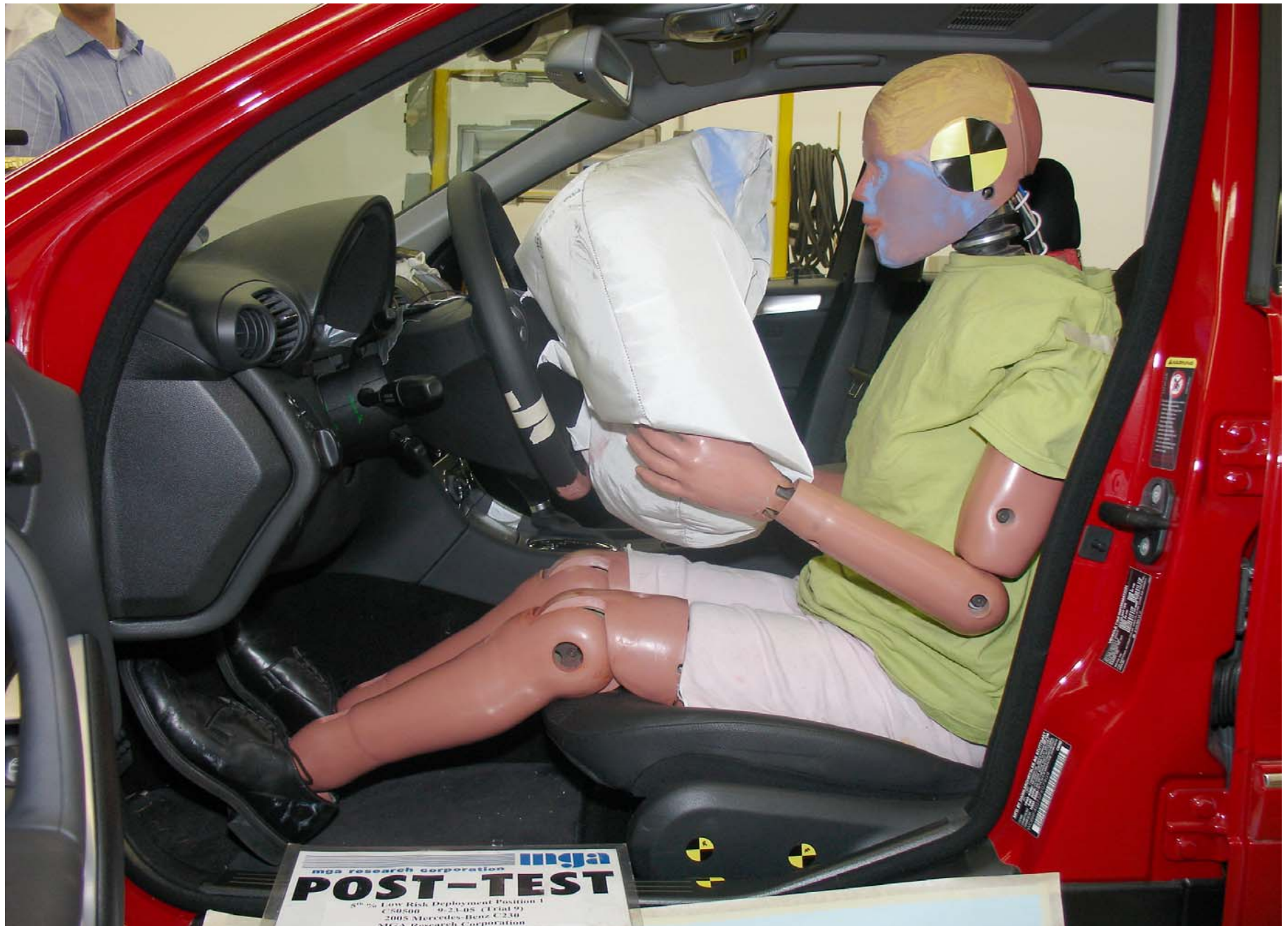


Post-Test 5th Fem. P1 Trial 8 Driver Dummy Airbag Right View



Pre-Test 5th Fem. P1 Trial 9 Driver Dummy Left Side View (Door Open)





Post-Test 5th Fem. P1 Trial 9 Driver Dummy Left Side View (Door Open)





Pre-Test 5th Fem. P1 Trial 9 Driver Dummy Right Side View (Door Open)





Post-Test 5th Fem. P1 Trial 9 Driver Dummy Right Side View (Door Open)



Pre-Test 5th Fem. P1 Trial 9 Driver Dummy Left Side Head Position View





Post-Test 5th Fem. P1 Trial 9 Drive Dummy Left Side Head Position View



Pre-Test 5th Fem. P1 Trial 9 Driver Dummy Right Side Head Position View





Pre-Test 5th Fem. P1 Trial 9 Driver Dummy Left Side Mid Position View





Post-Test 5th Fem. P1 Trial 9 Driver Dummy Left Side Mid Position View





Pre-Test 5th Fem. P1 Trial 9 Driver Dummy Right Side Mid Position View



Post-Test 5th Fem. P1 Trial 9 Driver Dummy Right Side Mid Position View

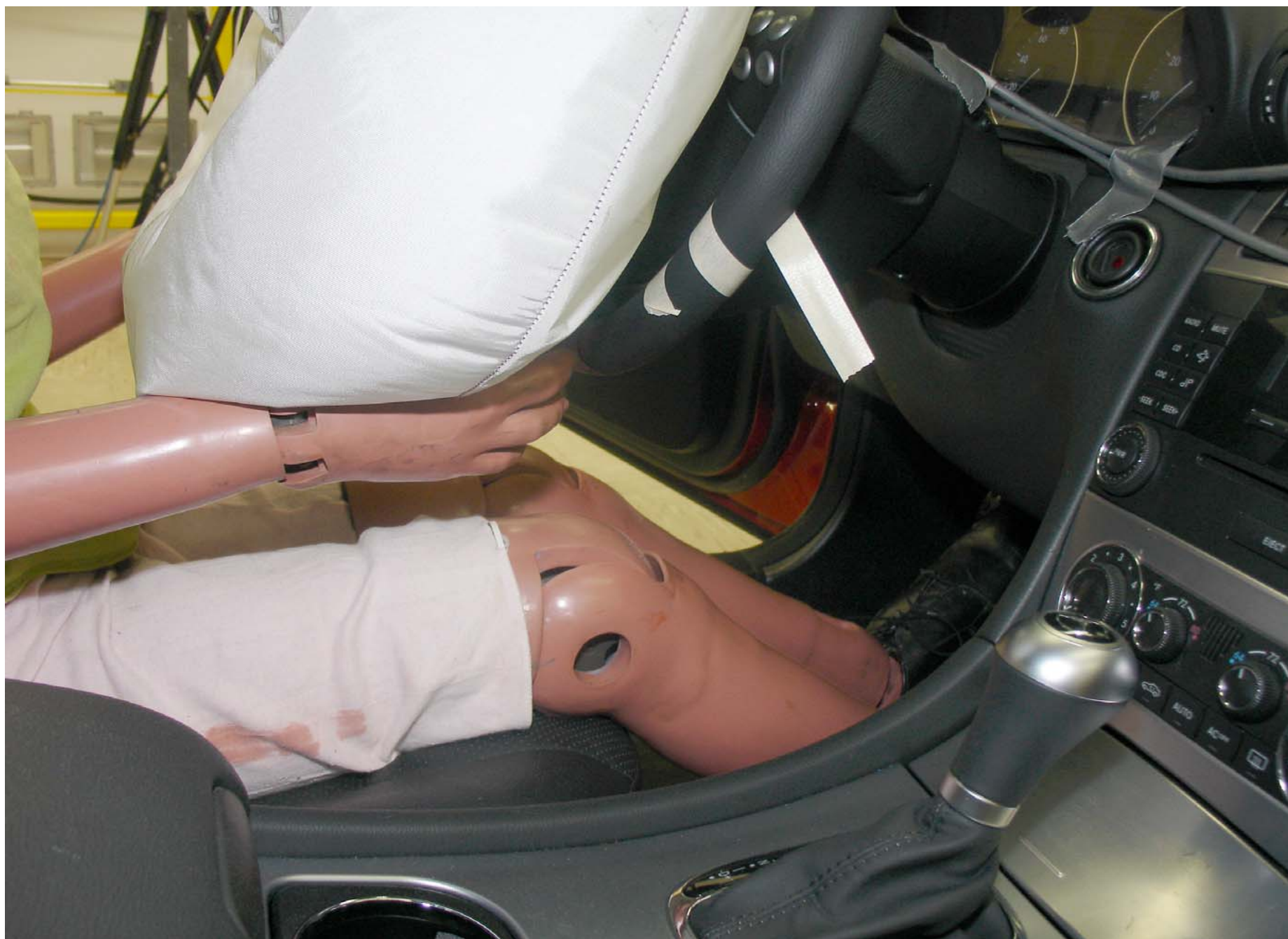




Pre-Test 5th Fem. P1 Trial 9 Driver Dummy Left Side Knee Position View

Pre-Test 5th Fem. P1 Trial 9 Driver Dummy Right Side Knee Position View





Post-Test 5th Fem. P1 Trial 9 Driver Dummy Right Side Knee Position View



Post-Test 5th Fem. P1 Trial 9 Driver Dummy Airbag Left View





Post-Test 5th Fem. P1 Trial 9 Driver Dummy Airbag Right View



Pre-Test 5th Fem. P1 Trial 10 Driver Dummy Left Side View (Door Open)





Post-Test 5th Fem. P1 Trial 10 Driver Dummy Left Side View (Door Open)





Pre-Test 5th Fem. P1 Trial 10 Driver Dummy Right Side View (Door Open)



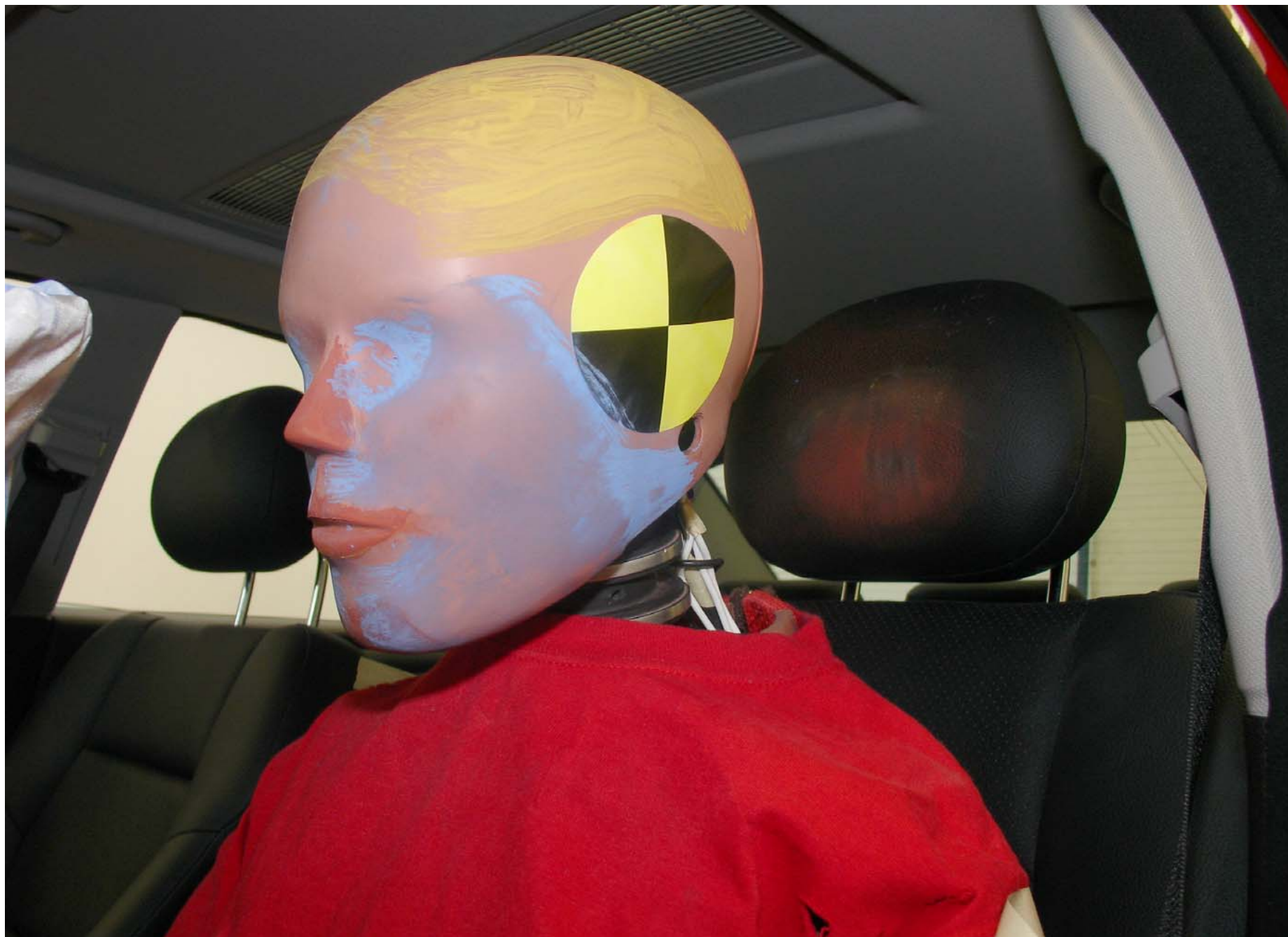


Post-Test 5th Fem. P1 Trial 10 Driver Dummy Right Side View (Door Open)



Pre-Test 5th Fem. P1 Trial 10 Driver Dummy Left Side Head Position View





Post-Test 5th Fem. P1 Trial 10 Drive Dummy Left Side Head Position View



Pre-Test 5th Fem. P1 Trial 10 Driver Dummy Right Side Head Position View



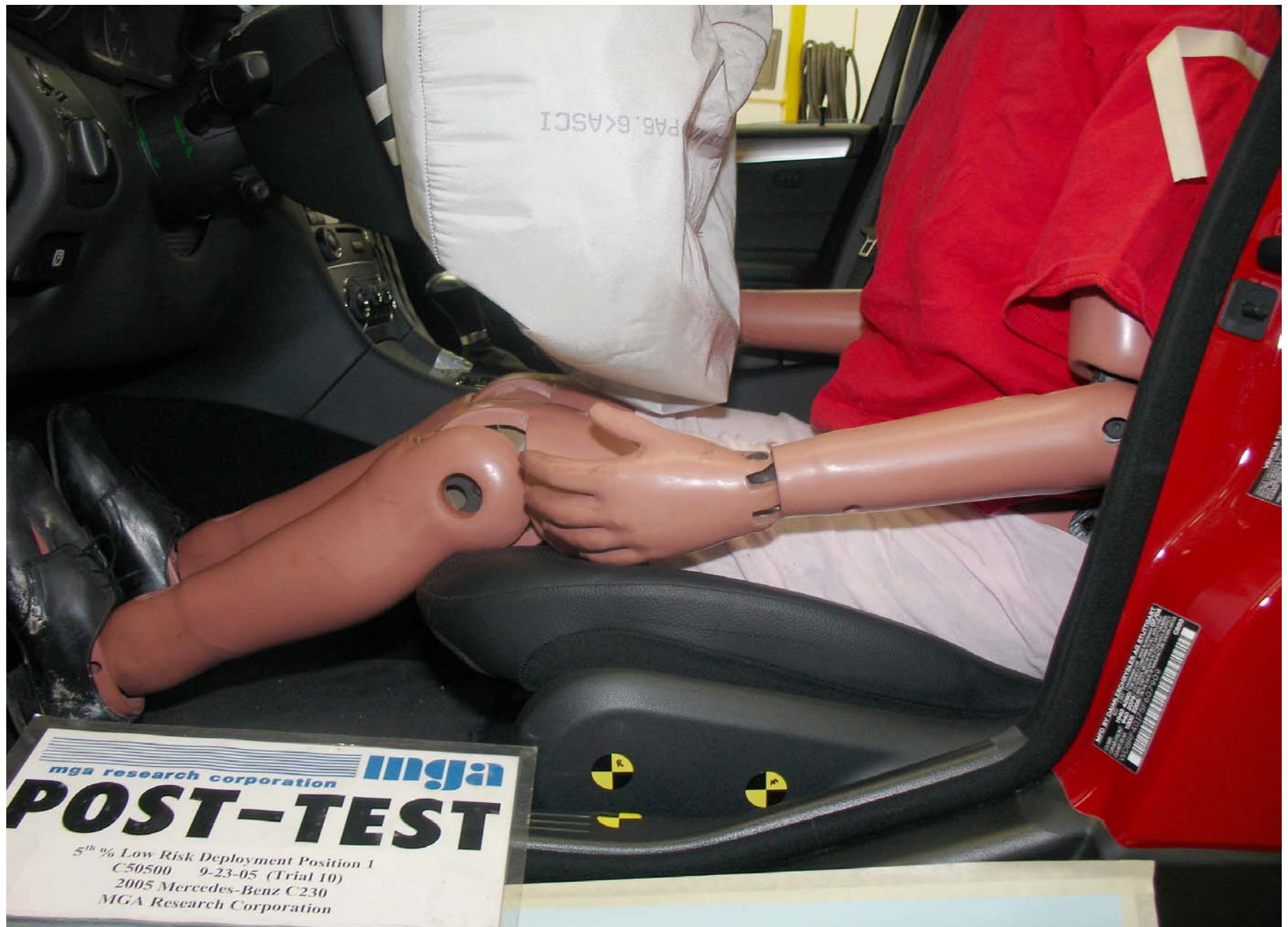


Post-Test 5th Fem. P1 Trial 10 Driver Dummy Right Side Head Position View



Pre-Test 5th Fem. P1 Trial 10 Driver Dummy Left Side Mid Position View





Post-Test 5th Fem. P1 Trial 10 Driver Dummy Left Side Mid Position View



Pre-Test 5th Fem. P1 Trial 10 Driver Dummy Right Side Mid Position View





Post-Test 5th Fem. P1 Trial 10 Driver Dummy Right Side Mid Position View



Post-Test 5th Fem. P1 Trial 10 Driver Dummy Airbag Left View





Post-Test 5th Fem. P1 Trial 10 Driver Dummy Airbag Right View



Pre-Test 5th Fem. P1 Trial 11 Driver Dummy Left Side View (Door Open)





Post-Test 5th Fem. P1 Trial 11 Driver Dummy Left Side View (Door Open)





Pre-Test 5th Fem. P1 Trial 11 Driver Dummy Right Side View (Door Open)



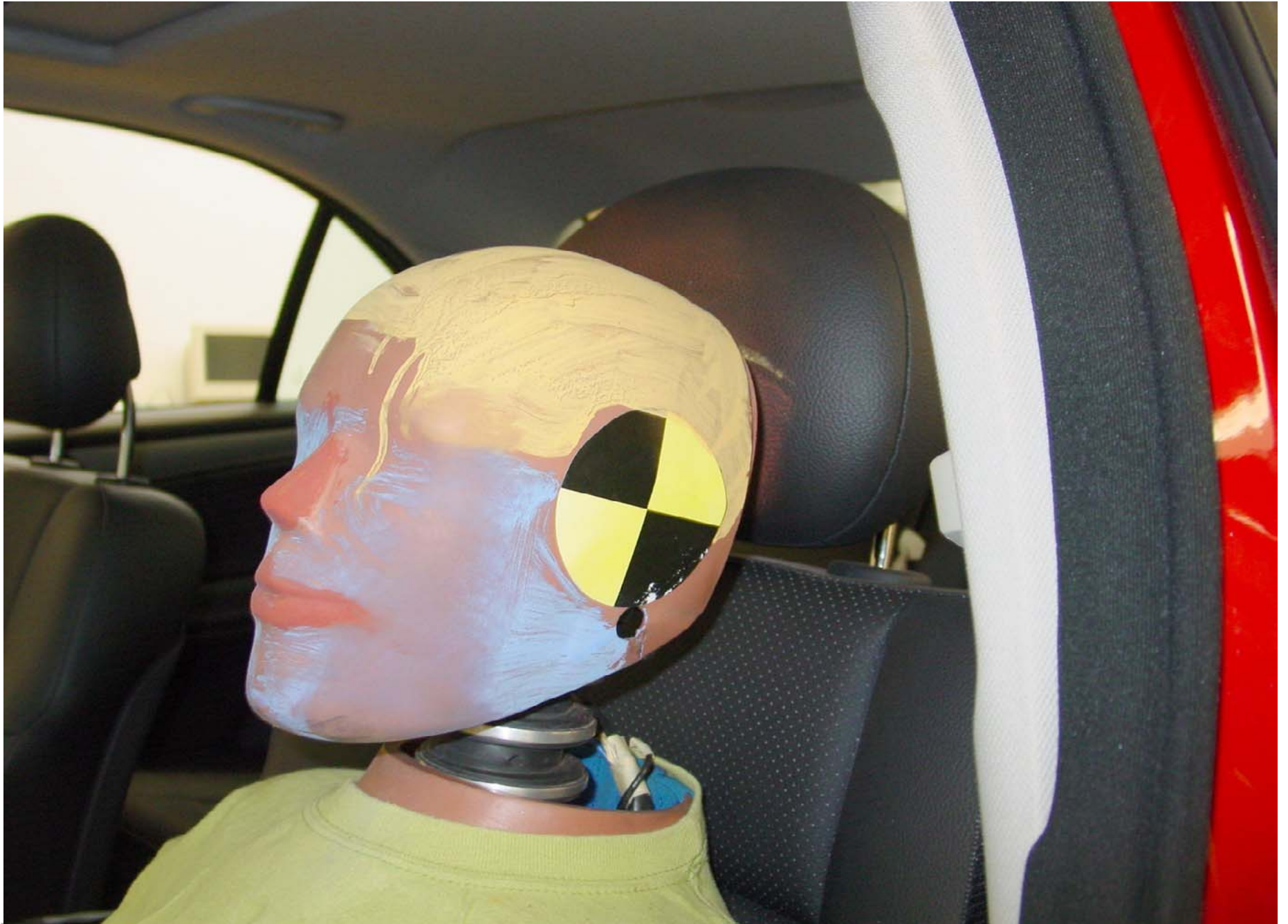


Post-Test 5th Fem. P1 Trial 11 Driver Dummy Right Side View (Door Open)



Pre-Test 5th Fem. P1 Trial 11 Driver Dummy Left Side Head Position View





Post-Test 5th Fem. P1 Trial 11 Drive Dummy Left Side Head Position View



Pre-Test 5th Fem. P1 Trial 11 Driver Dummy Right Side Head Position View





Post-Test 5th Fem. P1 Trial 11 Driver Dummy Right Side Head Position View





Pre-Test 5th Fem. P1 Trial 11 Driver Dummy Left Side Mid Position View





Post-Test 5th Fem. P1 Trial 11 Driver Dummy Left Side Mid Position View





Pre-Test 5th Fem. P1 Trial 11 Driver Dummy Right Side Mid Position View





Post-Test 5th Fem. P1 Trial 11 Driver Dummy Right Side Mid Position View





Post-Test 5th Fem. P1 Trial 11 Driver Dummy Airbag Left View





Post-Test 5th Fem. P1 Trial 11 Driver Dummy Airbag Right View



Pre-Test 5th Fem. P1 Trial 12 Driver Dummy Left Side View (Door Open)





Post-Test 5th Fem. P1 Trial 12 Driver Dummy Left Side View (Door Open)





Pre-Test 5th Fem. P1 Trial 12 Driver Dummy Right Side View (Door Open)



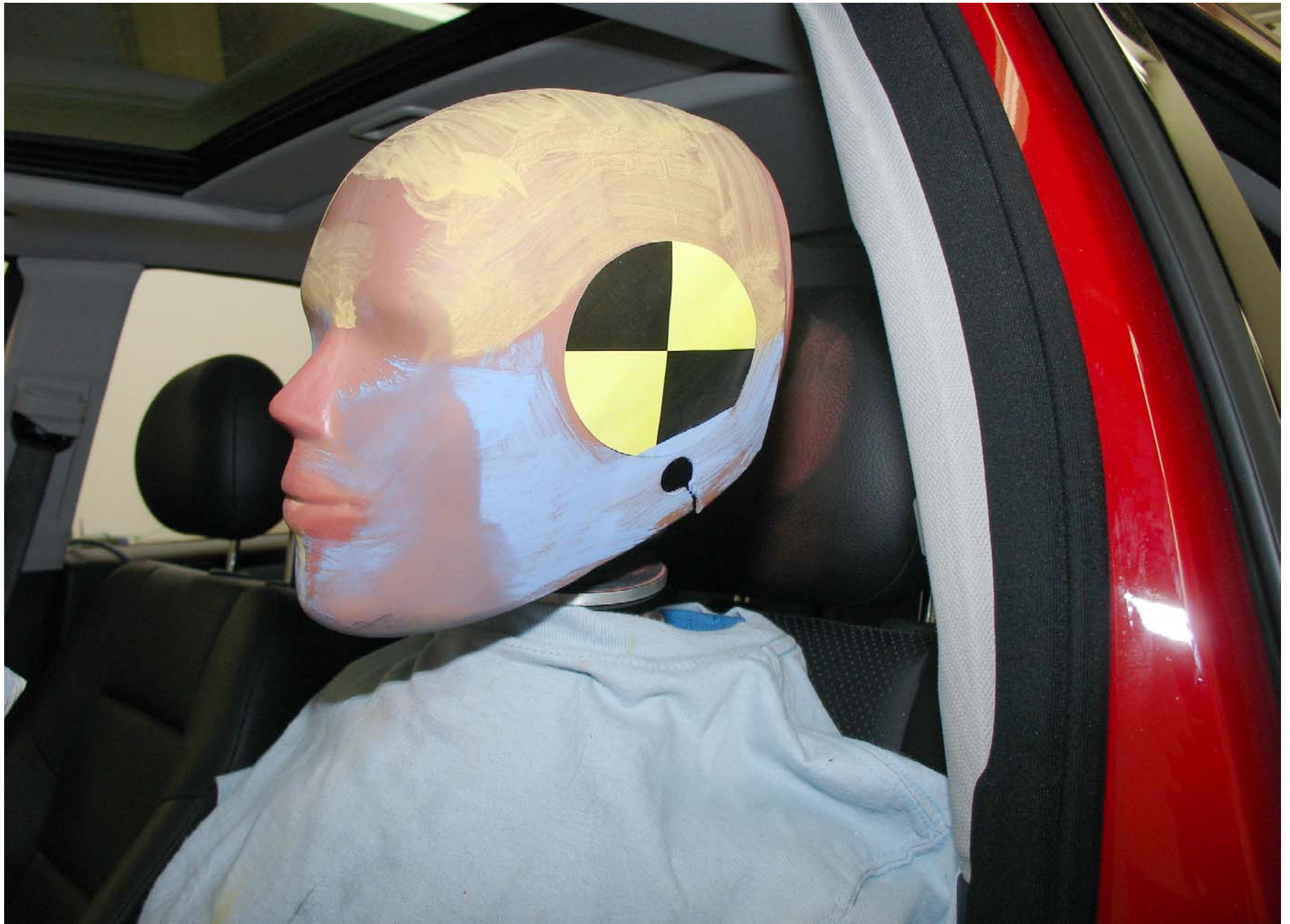


Post-Test 5th Fem. P1 Trial 12 Driver Dummy Right Side View (Door Open)



Pre-Test 5th Fem. P1 Trial 12 Driver Dummy Left Side Head Position View



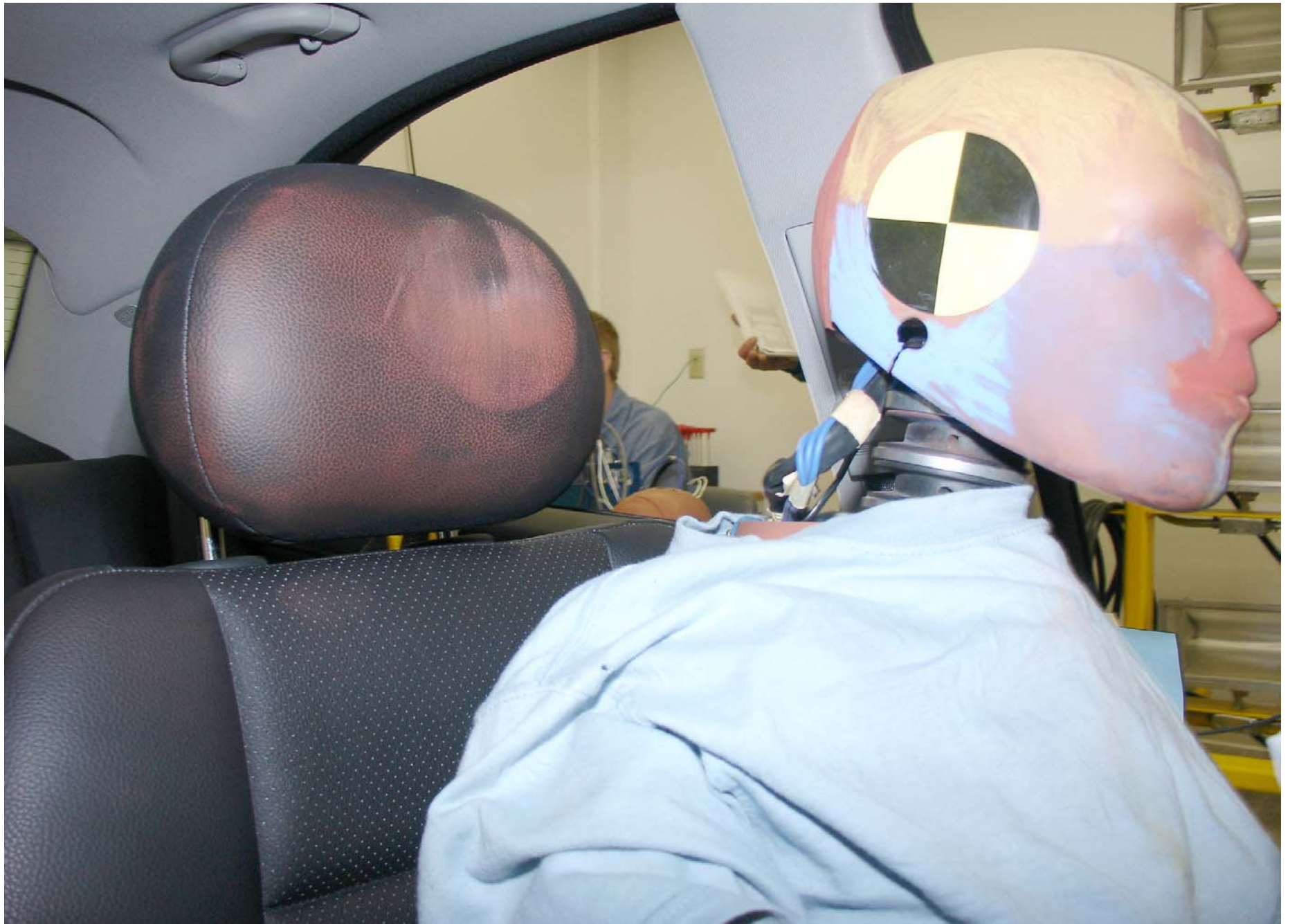


Post-Test 5th Fem. P1 Trial 12 Drive Dummy Left Side Head Position View



Pre-Test 5th Fem. P1 Trial 12 Driver Dummy Right Side Head Position View





Post-Test 5th Fem. P1 Trial 12 Driver Dummy Right Side Head Position View



Pre-Test 5th Fem. P1 Trial 12 Driver Dummy Left Side Mid Position View





Post-Test 5th Fem. P1 Trial 12 Driver Dummy Left Side Mid Position View





Pre-Test 5th Fem. P1 Trial 12 Driver Dummy Right Side Mid Position View





Post-Test 5th Fem. P1 Trial 12 Driver Dummy Right Side Mid Position View



Post-Test 5th Fem. P1 Trial 12 Driver Dummy Airbag Left View





Post-Test 5th Fem. P1 Trial 12 Driver Dummy Airbag Right View



5<sup>th</sup> 0% Low Risk Deployment Position 2  
C50500 4-5-05  
2005 Mercedes-Benz C230  
MGA Research Corp.

mga  
mga research corporation  
**PRE-TEST**  
5<sup>th</sup> 0% Low Risk Deployment Position 2  
C50500 4-5-05  
2005 Mercedes-Benz C230  
MGA Research Corporation

Pre-Test 5th Fem. P2 Driver Dummy Left Side View





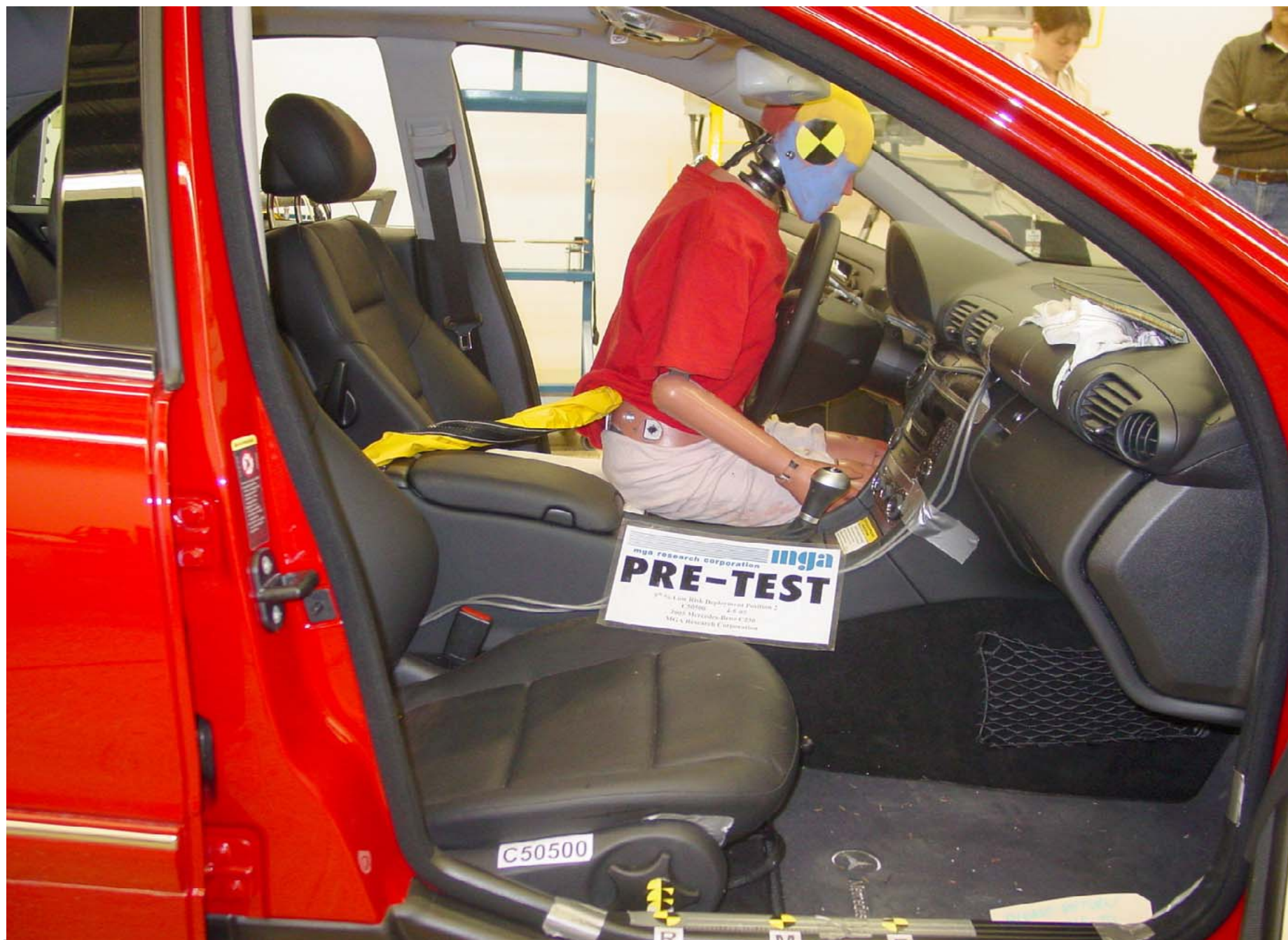
Pre-Test 5th Fem. P2 Driver Dummy Left Side View (Door Open)





Post-Test 5th Fem. P2 Driver Dummy Left Side View (Door Open)





Pre-Test 5th Fem. P2 Driver Dummy Right Side View (Door Open)





Post-Test 5th Fem. P2 Driver Dummy Right Side View (Door Open)





Pre-Test 5th Fem. P2 Driver Dummy Left Side Head Position View



Post-Test 5th Fem. P2 Drive Dummy Left Side Head Position View





Post-Test 5th Fem. P2 Driver Dummy Right Side Head Position View

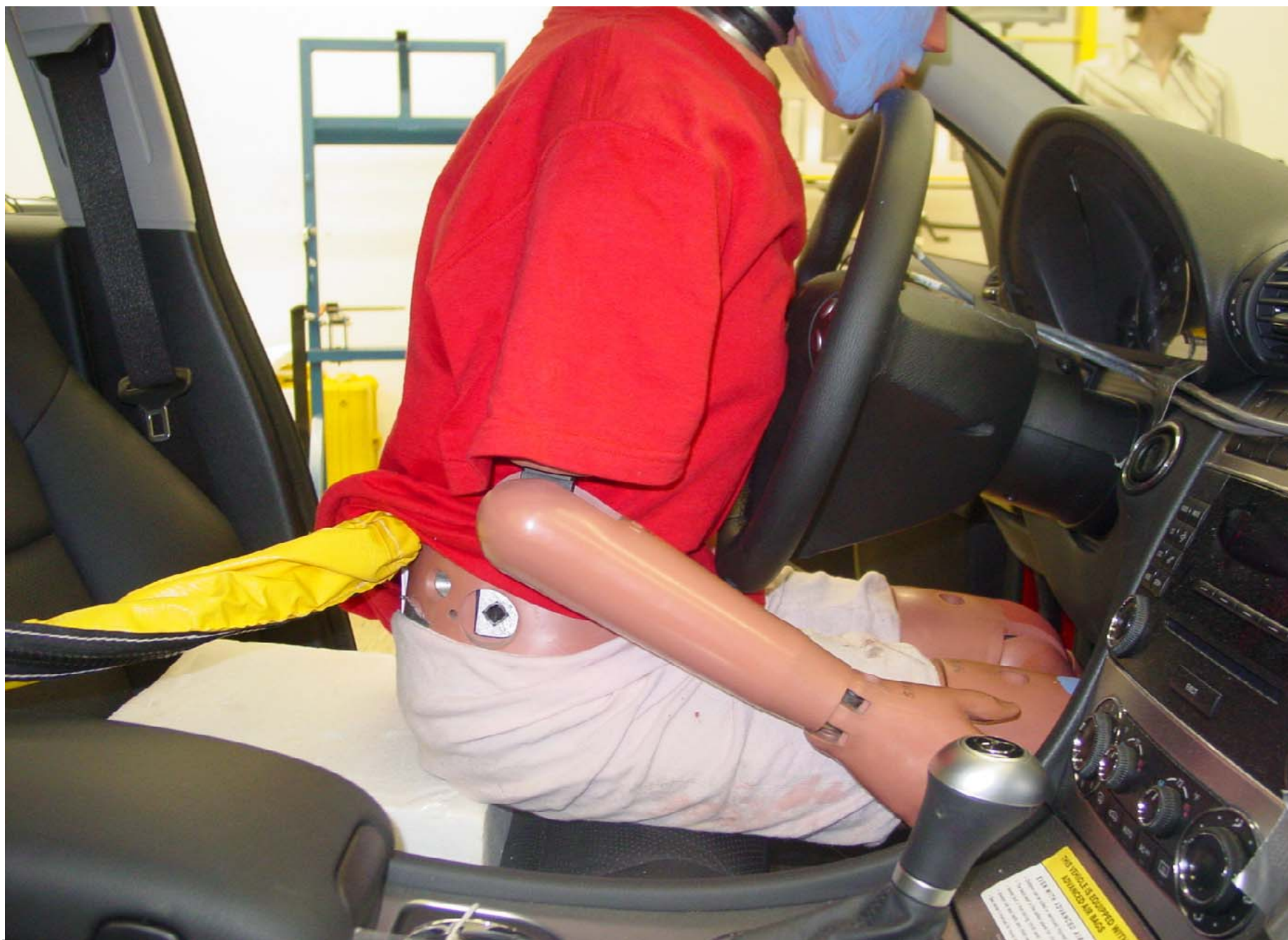


Pre-Test 5th Fem. P2 Driver Dummy Left Side Mid Position View





Post-Test 5th Fem. P2 Driver Dummy Left Side Mid Position View



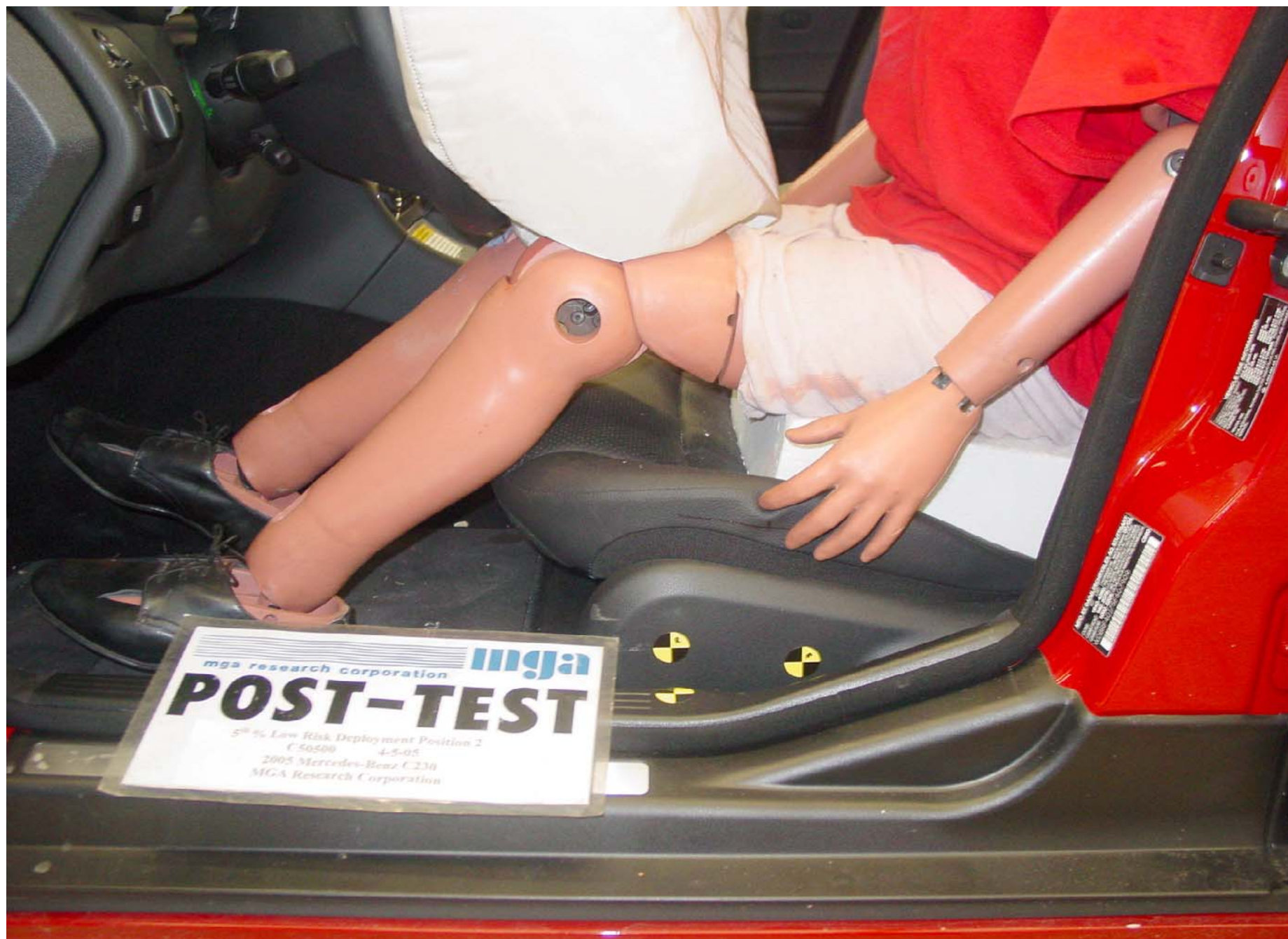
Pre-Test 5th Fem. P2 Driver Dummy Right Side Mid Position View





Pre-Test 5th Fem. P2 Driver Dummy Left Side Knee Position View





Post-Test 5th Fem. P2 Driver Dummy Left Side Knee Position View





Post-Test 5th Fem. P2 Driver Dummy Airbag Left View



Post-Test 5th Fem. P2 Driver Dummy Airbag Left View





Post-Test 5th Fem. P2 Driver Dummy Head Contact View 1



Post-Test 5th Fem. P2 Driver Dummy Head Contact View 2





Pre-Test 3YO P1 Passenger Dummy Left Side View (Door Open)





Post-Test 3YO P1 Passenger Dummy Left Side View (Door Open)





Pre-Test 3YO P1 Passenger Dummy Right Side View (Door Open)





Post-Test 3YO P1 Passenger Dummy Right Side View (Door Open)





Pre-Test 3YO P1 Passenger Dummy Left Three-Quarter Upper View



Post-Test 3YO P1 Passenger Dummy Left Three-Quarter Upper View





Pre-Test 3YO P1 Passenger Dummy Right Three-Quarter Upper View





Post-Test 3YO P1 Passenger Dummy Right Three-Quarter Upper View





Pre-Test 3YO P1 Passenger Dummy Right Side Mid Position View





Post-Test 3YO P1 Passenger Dummy Head Contact View (Seat)





Post-Test 3YO P1 Passenger Dummy Airbag Contact View





Pre-Test 3YO P2 Passenger Dummy Right Side View (Door Open)





Post-Test 3YO P2 Passenger Dummy Right Side View (Door Open)





Pre-Test 3YO P2 Passenger Dummy Left Side View (Door Open)



Post-Test 3YO P2 Passenger Dummy Left Side View (Door Open)



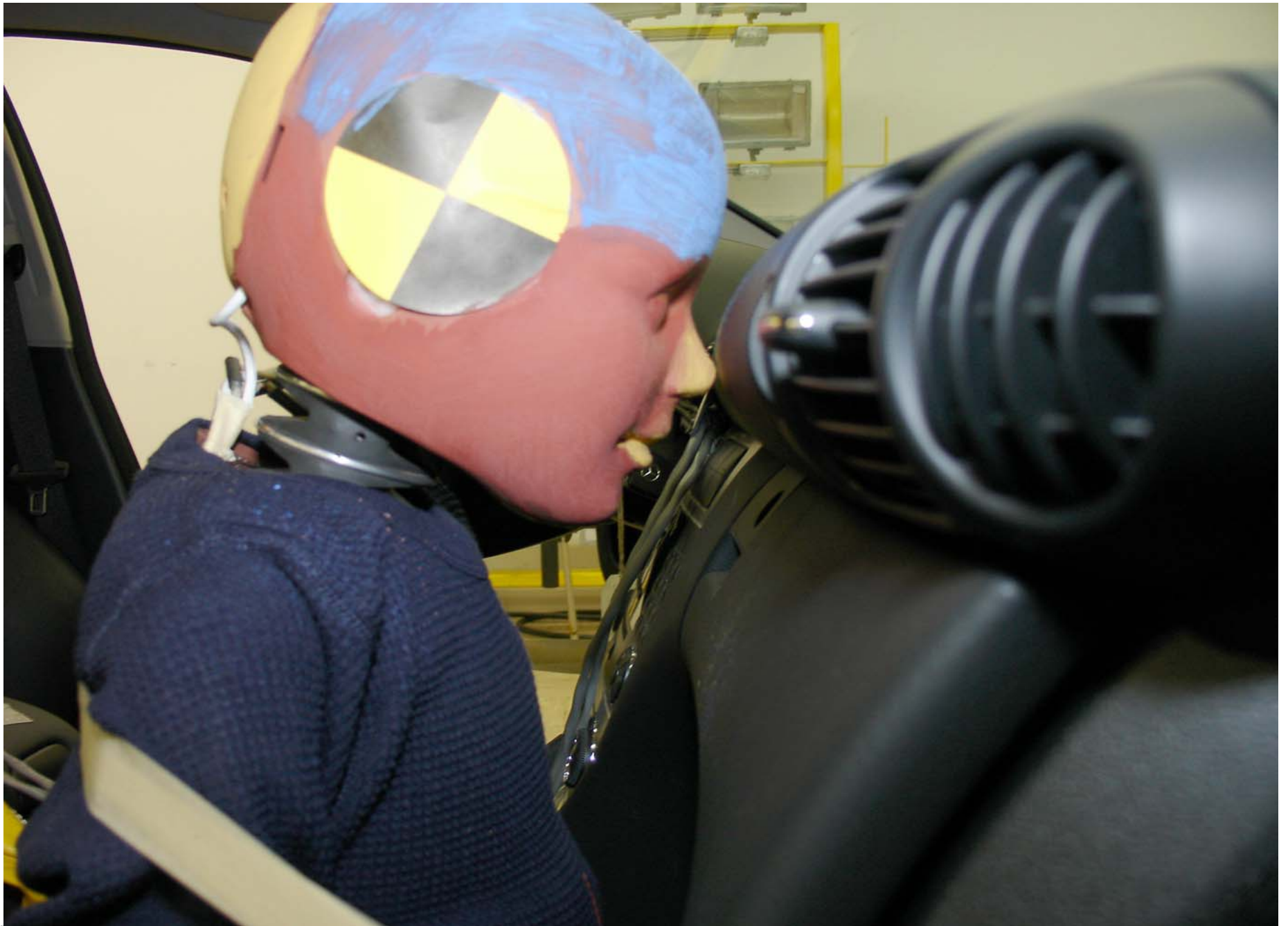


Pre-Test 3YO P2 Passenger Dummy Left Three-Quarter Upper View





Post-Test 3YO P2 Passenger Dummy Left Three-Quarter Upper View



Pre-Test 3YO P2 Passenger Dummy Right Three-Quarter Upper View





Post-Test 3YO P2 Passenger Dummy Right Three-Quarter Upper View





Pre-Test 3YO P2 Passenger Dummy Right Side Feet Position View



Post-Test 3YO P2 Passenger Dummy Right Side Feet Position View



B-230



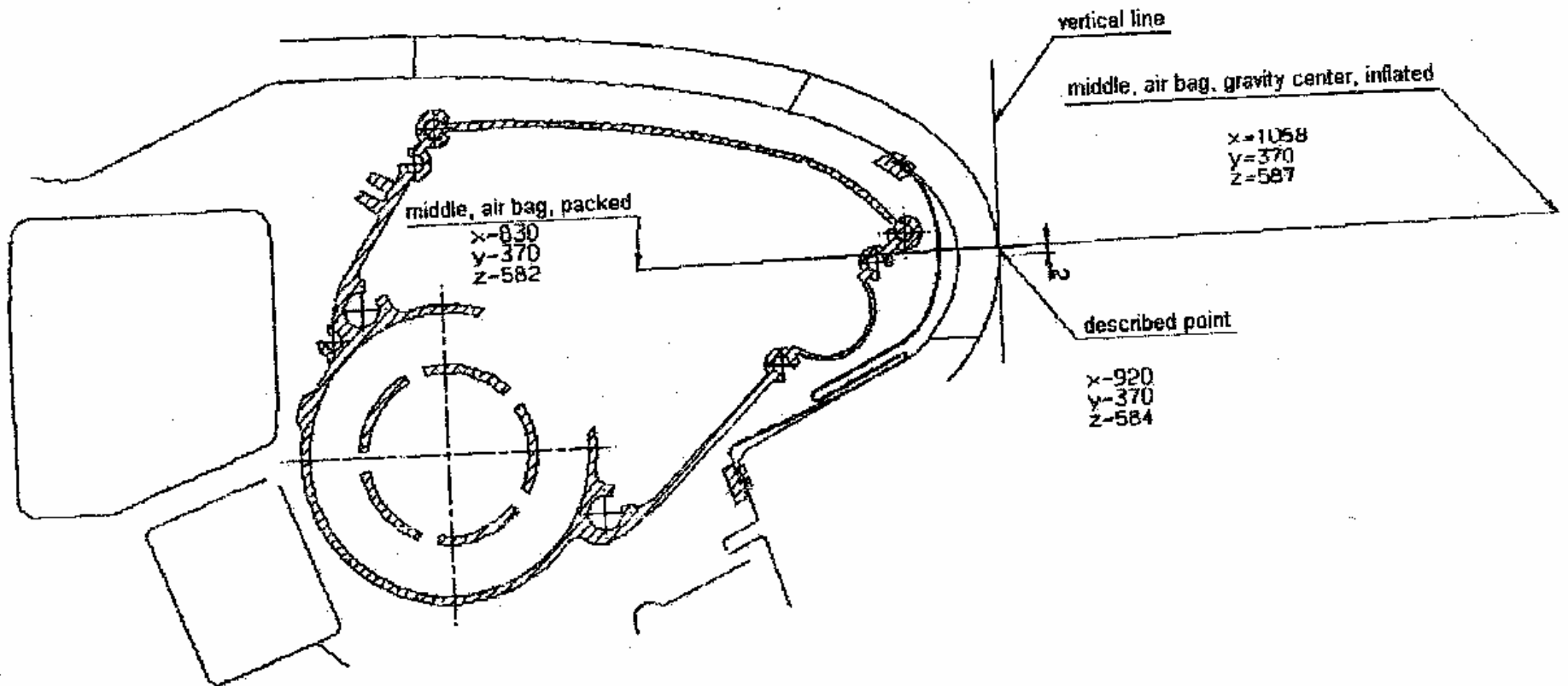
Post-Test 3YO P1 Passenger Dummy Airbag Contact View



B-231



Driver Geometric Center (2005 Mercedes C230)



Passenger Geometric Center (2005 Mercedes C230)

**APPENDIX C**  
**SUPPRESSION PHOTOGRAPHS**



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DOT/NHTSA 208 Suppression Test – 2005 Mercedes Benz (C50500)

Newborn

Section A

Car Bed



Cosco Dream Ride Car Bed With Belt,  
Middle Seat Track



Unbelted 5th Percentile Female Reactivation,  
Middle Seat Track



DOT/NHTSA 208 Suppression Test – 2005 Mercedes Benz (C50500)

12 Month

Section B

Rear Facing CRS



Britax Handle With Care 191 With Belt, Forward Seat Track,  
Handle Down



Britax Handle With Care 191 With Belt, Middle Seat Track,  
Handle Down



Britax Handle With Care 191 With Belt, Rearward Seat Track,  
Handle Down

DOT/NHTSA 208 Suppression Test – 2005 Mercedes Benz (C50500)

12 Month

Section B

Rear Facing CRS



Britax Handle With Care 191 Unbelted, Forward Seat Track,  
Handle Down



Britax Handle With Care 191 Unbelted, Middle Seat Track,  
Handle Down



Britax Handle With Care 191 Unbelted, Rearward Seat Track,  
Handle Down



DOT/NHTSA 208 Suppression Test – 2005 Mercedes Benz (C50500)

12 Month

Section B

Rear Facing CRS



Britax Handle With Care 191 Fwd Facing Unbelted,  
Forward Seat Track, Handle Down



Britax Handle With Care 191 Fwd Facing Unbelted,  
Middle Seat Track, Handle Down



Britax Handle With Care 191 Fwd Facing Unbelted,  
Rearward Seat Track, Handle Down



Unbelted 5th Percentile Female Reactivation,  
Rearward Seat Track



DOT/NHTSA 208 Suppression Test – 2005 Mercedes Benz (C50500)

12 Month

Section B

Rear Facing CRS



Evenflo First Choice 204 With Belt,  
Forward Seat Track, Handle Up



Evenflo First Choice 204 With Belt,  
Middle Seat Track, Handle Up



Evenflo First Choice 204 With Belt,  
Rearward Seat Track, Handle Down

DOT/NHTSA 208 Suppression Test – 2005 Mercedes Benz (C50500)

12 Month

Section B

Rear Facing CRS



Evenflo First Choice 204 Unbelted,  
Middle Seat Track, Handle Up



Evenflo First Choice 204 Unbelted,  
Rearward Seat Track, Handle Up



DOT/NHTSA 208 Suppression Test – 2005 Mercedes Benz (C50500)

12 Month

Section B

Rear Facing CRS



Evenflo First Choice 204 Fwd Facing Unbelted,  
Forward Seat Track, Handle Up



Evenflo First Choice 204 Fwd Facing Unbelted,  
Middle Seat Track, Handle Up



Evenflo First Choice 204 Fwd Facing Unbelted,  
Rearward Seat Track, Handle Up



Unbelted 5th Percentile Female Reactivation,  
Middle Seat Track



DOT/NHTSA 208 Suppression Test – 2005 Mercedes Benz (C50500)

12 Month

Section B

Rear Facing CRS



Graco Infant W/ Base With Belt,  
Forward Seat Track, Handle Up



Graco Infant W/ Base With Belt,  
Middle Seat Track, Handle Up



Graco Infant W/ Base With Belt,  
Rearward Seat Track, Handle Down



Graco Infant W/ Base Unbelted,  
Forward Seat Track, Handle Up

DOT/NHTSA 208 Suppression Test – 2005 Mercedes Benz (C50500)

12 Month

Section B

Rear Facing CRS



Graco Infant W/ Base Unbelted,  
Middle Seat Track, Handle Up



Graco Infant W/ Base Unbelted,  
Rearward Seat Track, Handle Down



Graco Infant W/ Base Fwd Facing Unbelted,  
Forward Seat Track, Handle Up



Graco Infant W/ Base Fwd Facing Unbelted,  
Middle Seat Track, Handle Up



DOT/NHTSA 208 Suppression Test – 2005 Mercedes Benz (C50500)

12 Month

Section B

Rear Facing CRS



Graco Infant W/ Base Fwd Facing Unbelted,  
Rearward Seat Track, Handle Up



DOT/NHTSA 208 Suppression Test – 2005 Mercedes Benz (C50500)

12 Month

Section B

Rear Facing CRS



Graco Infant W/O Base With Belt,  
Forward Seat Track, Handle Up



Graco Infant W/O Base With Belt,  
Middle Seat Track, Handle Up



Graco Infant W/O Base With Belt,  
Rearward Seat Track, Handle Down



Graco Infant W/O Base Unbelted,  
Middle Seat Track, Handle Up

DOT/NHTSA 208 Suppression Test – 2005 Mercedes Benz (C50500)

12 Month

Section B

Rear Facing CRS



Graco Infant W/O Base Unbelted,  
Rearward Seat Track, Handle Down



Graco Infant W/O Base Fwd Facing Unbelted,  
Forward Seat Track, Handle Up



Graco Infant W/O Base Fwd Facing Unbelted,  
Middle Seat Track, Handle Up



Graco Infant W/O Base Fwd Facing Unbelted,  
Rearward Seat Track, Handle Up



DOT/NHTSA 208 Suppression Test – 2005 Mercedes Benz (C50500)

12 Month

Section B

Rear Facing CRS



Unbelted 5th Percentile Female Reactivation,  
Middle Seat Track



DOT/NHTSA 208 Suppression Test – 2005 Mercedes Benz (C50500)

12 Month

Section C

Forward Facing Convertible CRS



Britax Roundabout 161 Fwd Facing With Belt,  
Forward Seat Track



Britax Roundabout 161 Fwd Facing With Belt,  
Middle Seat Track



Britax Roundabout 161 Fwd Facing With Belt,  
Rearward Seat Track

DOT/NHTSA 208 Suppression Test – 2005 Mercedes Benz (C50500)

12 Month

Section C

Forward Facing Convertible CRS



Britax Roundabout 161 Fwd Facing Unbelted,  
Forward Seat Track



Britax Roundabout 161 Fwd Facing Unbelted,  
Middle Seat Track



Britax Roundabout 161 Fwd Facing Unbelted,  
Rearward Seat Track



DOT/NHTSA 208 Suppression Test – 2005 Mercedes Benz (C50500)

12 Month

Section C

Forward Facing Convertible CRS



Britax Roundabout 161 Rear Facing With Belt,  
Forward Seat Track



Britax Roundabout 161 Rear Facing With Belt,  
Middle Seat Track



Britax Roundabout 161 Rear Facing With Belt,  
Rearward Seat Track



DOT/NHTSA 208 Suppression Test – 2005 Mercedes Benz (C50500)

12 Month

Section C

Forward Facing Convertible CRS



Britax Roundabout 161 Rear Facing Unbelted,  
Forward Seat Track



Britax Roundabout 161 Rear Facing Unbelted,  
Middle Seat Track



Britax Roundabout 161 Rear Facing Unbelted,  
Rearward Seat Track



Unbelted 5th Percentile Female Reactivation,  
Middle Seat Track



DOT/NHTSA 208 Suppression Test – 2005 Mercedes Benz (C50500)

12 Month

Section C

Forward Facing Convertible CRS



Century Encore Fwd Facing With Belt,  
Forward Seat Track



Century Encore Fwd Facing With Belt,  
Middle Seat Track



Century Encore Fwd Facing With Belt,  
Rearward Seat Track



Century Encore Fwd Facing Unbelted,  
Forward Seat Track

DOT/NHTSA 208 Suppression Test – 2005 Mercedes Benz (C50500)

12 Month

Section C

Forward Facing Convertible CRS



Century Encore Fwd Facing Unbelted,  
Middle Seat Track



Century Encore Fwd Facing Unbelted,  
Rearward Seat Track



DOT/NHTSA 208 Suppression Test – 2005 Mercedes Benz (C50500)

12 Month

Section C

Forward Facing Convertible CRS



Century Encore Rear Facing With Belt,  
Forward Seat Track



Century Encore Rear Facing With Belt,  
Middle Seat Track



Century Encore Rear Facing With Belt,  
Rearward Seat Track



Century Encore Rear Facing Unbelted,  
Forward Seat Track

DOT/NHTSA 208 Suppression Test – 2005 Mercedes Benz (C50500)

12 Month

Section C

Forward Facing Convertible CRS



Century Encore Rear Facing Unbelted,  
Middle Seat Track



Century Encore Rear Facing Unbelted,  
Rearward Seat Track



Unbelted 5th Percentile Female Reactivation,  
Middle Seat Track



DOT/NHTSA 208 Suppression Test – 2005 Mercedes Benz (C50500)

12 Month

Section C

Forward Facing Convertible CRS



Evenflo Medallion 254 Fwd Facing With Belt,  
Forward Seat Track



Evenflo Medallion 254 Fwd Facing With Belt,  
Middle Seat Track



Evenflo Medallion 254 Fwd Facing With Belt,  
Rearward Seat Track



Evenflo Medallion 254 Fwd Facing Unbelted,  
Forward Seat Track



DOT/NHTSA 208 Suppression Test – 2005 Mercedes Benz (C50500)

12 Month

Section C

Forward Facing Convertible CRS



Evenflo Medallion 254 Fwd Facing Unbelted,  
Middle Seat Track



Evenflo Medallion 254 Fwd Facing Unbelted,  
Rearward Seat Track

DOT/NHTSA 208 Suppression Test – 2005 Mercedes Benz (C50500)

12 Month

Section C

Forward Facing Convertible CRS



Evenflo Medallion 254 Rear Facing With Belt,  
Forward Seat Track



Evenflo Medallion 254 Rear Facing With Belt,  
Middle Seat Track



Evenflo Medallion 254 Rear Facing With Belt,  
Rearward Seat Track



DOT/NHTSA 208 Suppression Test – 2005 Mercedes Benz (C50500)

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Section C

Forward Facing Convertible CRS



Evenflo Medallion 254 Rear Facing Unbelted,  
Forward Seat Track



Evenflo Medallion 254 Rear Facing Unbelted,  
Middle Seat Track



Evenflo Medallion 254 Rear Facing Unbelted,  
Rearward Seat Track



Unbelted 5th Percentile Female Reactivation,  
Forward Seat Track



**APPENDIX D**  
**INSTRUMENTATION CALIBRATION**

**INSTRUMENTS FOR LOW RISK 5<sup>TH</sup> FEMALE DUMMY NO. 506 (P1) Trial 1**

	SERIAL NO.	MANUFACTURER	CALIBRATION DATE
Head X	AGTM8	Endevco	03/02/05
Head Y	AMRR4	Endevco	03/02/05
Head Z	P27012	Endevco	03/02/05
Neck Load Cell	1561	Denton	02/09/05
Chest X	AJ819	Endevco	01/26/05
Chest Y	AJ7A2	Endevco	01/26/05
Chest Z	AJ9J7	Endevco	01/26/05
Chest Displacement	506	Servo	12/17/04
Left Femur Load Cell	946	GSE	01/24/05
Right Femur Load Cell	945	GSE	01/24/05

**INSTRUMENTS FOR LOW RISK 5<sup>TH</sup> FEMALE DUMMY NO. 511 (P1) Trial 2**

	SERIAL NO.	MANUFACTURER	CALIBRATION DATE
Head X	AP2D6	Endevco	03/15/05
Head Y	AHR15	Endevco	03/15/05
Head Z	J21612	Endevco	03/15/05
Neck Load Cell	606	Denton	11/12/04
Chest X	AHY71	Endevco	03/15/05
Chest Y	B05-J18	Entran	03/15/05
Chest Z	F11-H01	Entran	03/15/05
Chest Displacement	511	Servo	12/23/04
Left Femur Load Cell	1362	Denton	03/17/05
Right Femur Load Cell	1361	Denton	03/17/05

**INSTRUMENTS FOR LOW RISK 5<sup>TH</sup> FEMALE DUMMY NO. 505 (P1) Trial 3**

	SERIAL NO.	MANUFACTURER	CALIBRATION DATE
Head X	J12425	Endevco	01/20/05
Head Y	J12449	Endevco	01/20/05
Head Z	J12462	Endevco	01/20/05
Neck Load Cell	1748	Denton	03/11/05
Chest X	C24-A09	Entran	01/20/05
Chest Y	AKAH1	Endevco	01/20/05
Chest Z	C24-A05	Entran	01/20/05
Chest Displacement	505	Servo	12/23/04
Left Femur Load Cell	959	GSE	02/14/05
Right Femur Load Cell	950	GSE	02/14/05

**INSTRUMENTS FOR LOW RISK 5<sup>TH</sup> FEMALE DUMMY NO. 505 (P1) Trial 4**

	SERIAL NO.	MANUFACTURER	CALIBRATION DATE
Head X	AGTY1	Endevco	06/03/05
Head Y	AHT13	Endevco	06/03/05
Head Z	APY16	Endevco	06/03/05
Neck Load Cell	606	Denton	05/17/05
Chest X	AH0M0	Endevco	06/03/05
Chest Y	J22034	Endevco	06/03/05
Chest Z	AJ9T6	Endevco	06/03/05
Chest Displacement	505	Servo	06/07/05
Left Femur Load Cell	957	GSE	05/09/05
Right Femur Load Cell	956	GSE	05/09/05



**INSTRUMENTS FOR LOW RISK 5<sup>TH</sup> FEMALE DUMMY NO. 506 (P1) Trial 5**

	SERIAL NO.	MANUFACTURER	CALIBRATION DATE
Head X	AGTM8	Endevco	03/02/05
Head Y	AMRR4	Endevco	03/02/05
Head Z	P27012	Endevco	03/02/05
Neck Load Cell	1562	Denton	03/07/05
Chest X	AP2D6	Endevco	03/15/05
Chest Y	J21612	Endevco	03/15/05
Chest Z	AHR15	Endevco	03/15/05
Chest Displacement	506	Servo	06/07/05
Left Femur Load Cell	946	GSE	01/24/05
Right Femur Load Cell	945	GSE	01/24/05

**INSTRUMENTS FOR LOW RISK 5<sup>TH</sup> FEMALE DUMMY NO. 510 (P1) Trial 6**

	SERIAL NO.	MANUFACTURER	CALIBRATION DATE
Head X	C15-Z02	Entran	03/11/05
Head Y	A12-Z12	Entran	03/11/05
Head Z	C17-J01	Entran	03/11/05
Neck Load Cell	1673	Denton	06/24/05
Chest X	J13943	Endevco	03/11/05
Chest Y	AGTY6	Endevco	03/11/05
Chest Z	AALH1	Endevco	03/11/05
Chest Displacement	510	Servo	05/24/05
Left Femur Load Cell	959	GSE	02/14/05
Right Femur Load Cell	950	GSE	02/14/05

**INSTRUMENTS FOR LOW RISK 5<sup>TH</sup> FEMALE DUMMY NO. 507 (P1) Trial 7**

	SERIAL NO.	MANUFACTURER	CALIBRATION DATE
Head X	J14027	Endevco	07/07/05
Head Y	AHWP2	Endevco	07/07/05
Head Z	AP138	Endevco	08/16/05
Neck Load Cell	1673	Denton	06/24/05
Chest X	F28-N04	Entran	08/15/05
Chest Y	F14-B19	Entran	08/15/05
Chest Z	F11-H19	Entran	08/15/05
Chest Displacement	507	Servo	05/24/05
Left Femur Load Cell	946	GSE	07/28/05
Right Femur Load Cell	945	GSE	07/28/05

**INSTRUMENTS FOR LOW RISK 5<sup>TH</sup> FEMALE DUMMY NO. 510 (P1) Trial 8**

	SERIAL NO.	MANUFACTURER	CALIBRATION DATE
Head X	J23-M06	Entran	08/15/05
Head Y	J23-M07	Entran	08/15/05
Head Z	J23-M03	Entran	08/15/05
Neck Load Cell	253	Denton	05/26/05
Chest X	AJ411	Endevco	06/29/05
Chest Y	J13422	Endevco	06/29/05
Chest Z	J11630	Endevco	06/29/05
Chest Displacement	510	Servo	05/24/05
Left Femur Load Cell	9428	GSE	09/14/05
Right Femur Load Cell	9427	GSE	09/14/05

### INSTRUMENTS FOR LOW RISK 5<sup>TH</sup> FEMALE DUMMY NO. 505 (P1) Trial 9

	SERIAL NO.	MANUFACTURER	CALIBRATION DATE
Head X	AGTY1	Endevco	06/03/05
Head Y	AHT13	Endevco	06/03/05
Head Z	APY16	Endevco	06/03/05
Neck Load Cell	1673	Denton	06/24/05
Chest X	AH0M0	Endevco	06/03/05
Chest Y	J22034	Endevco	06/03/05
Chest Z	AJ9T6	Endevco	06/03/05
Chest Displacement	505	Servo	06/07/05
Left Femur Load Cell	957	GSE	05/09/05
Right Femur Load Cell	956	GSE	05/09/05

### INSTRUMENTS FOR LOW RISK 5<sup>TH</sup> FEMALE DUMMY NO. 516 (P1) Trial 10

	SERIAL NO.	MANUFACTURER	CALIBRATION DATE
Head X	C06-Y11	Entran	03/31/05
Head Y	C09-Y02	Entran	03/31/05
Head Z	C09-Y19	Entran	03/31/05
Neck Load Cell	253	Denton	05/26/05
Chest X	AMTB1	Endevco	06/03/05
Chest Y	J20298	Endevco	06/03/05
Chest Z	P26993	Endevco	06/03/05
Chest Displacement	516	Servo	06/13/05
Left Femur Load Cell	9428	GSE	09/14/05
Right Femur Load Cell	9427	GSE	09/14/05



**INSTRUMENTS FOR LOW RISK 5<sup>TH</sup> FEMALE DUMMY NO. 075 (P1) Trial 11**

	SERIAL NO.	MANUFACTURER	CALIBRATION DATE
Head X	ET21255	Entran	05/02/06
Head Y	ET21245	Entran	05/02/06
Head Z	ET21246	Entran	05/02/06
Neck Load Cell	1561	Denton	02/28/06
Chest X	ET21247	Entran	05/02/06
Chest Y	ET21149	Entran	05/02/06
Chest Z	ET21143	Entran	05/02/06
Chest Displacement	075	Servo	03/23/06
Left Femur Load Cell	9426	GSE	02/20/06
Right Femur Load Cell	9425	GSE	02/20/06

**INSTRUMENTS FOR LOW RISK 5<sup>TH</sup> FEMALE DUMMY NO. 075 (P1) Trial 12**

	SERIAL NO.	MANUFACTURER	CALIBRATION DATE
Head X	ET21255	Entran	05/02/06
Head Y	ET21245	Entran	05/20/06
Head Z	ET21246	Entran	05/20/06
Neck Load Cell	1561	Denton	02/28/06
Chest X	ET21247	Entran	05/02/06
Chest Y	ET21149	Entran	05/02/06
Chest Z	ET21143	Entran	05/02/06
Chest Displacement	075	Servo	03/23/06
Left Femur Load Cell	9426	GSE	02/20/06
Right Femur Load Cell	9425	GSE	02/20/06

### INSTRUMENTS FOR LOW RISK 5<sup>TH</sup> FEMALE DUMMY NO. 511 (P2)

	SERIAL NO.	MANUFACTURER	CALIBRATION DATE
Head X	AP2D6	Endevco	03/15/05
Head Y	AHR15	Endevco	03/15/05
Head Z	J21612	Endevco	03/15/05
Neck Load Cell	606	Denton	11/12/04
Chest X	AHY71	Endevco	03/15/05
Chest Y	B05-J18	Entran	03/15/05
Chest Z	F11-H01	Entran	03/15/05
Chest Displacement	511	Servo	12/23/04
Left Femur Load Cell	1362	Denton	03/17/05
Right Femur Load Cell	1361	Denton	03/17/05

### INSTRUMENTS FOR LOW RISK 3 YEAR OLD PASSENGER DUMMY NO. 032 (P1)

	SERIAL NO.	MANUFACTURER	CALIBRATION DATE
Head X	AGRW3	Endevco	03/02/05
Head Y	AMPY0	Endevco	03/02/05
Head Z	J14896	Endevco	03/02/05
Neck Load Cell	233	Denton	09/15/04
Chest X	AH1F9	Endevco	01/20/05
Chest Y	AHY98	Endevco	03/02/05
Chest Z	ALFL9	Endevco	10/25/04
Chest Displacement	032	Servo	12/28/04

### INSTRUMENTS FOR LOW RISK 3 YEAR OLD PASSENGER DUMMY NO. 032 (P2)

	SERIAL NO.	MANUFACTURER	CALIBRATION DATE
Head X	AGRW3	Endevco	03/02/05
Head Y	AMPY0	Endevco	03/02/05
Head Z	J14896	Endevco	03/02/05
Neck Load Cell	233	Denton	04/04/05
Chest X	J13541	Endevco	03/02/05
Chest Y	J13709	Endevco	03/02/05
Chest Z	J17709	Endevco	03/02/05
Chest Displacement	032	Servo	12/28/04

**APPENDIX E**  
**NOTICE OF TEST FAILURE**





## LABORATORY NOTICE OF APPARENT TEST FAILURE TO OVSC

FMVSS NO. 208 TEST DATE: March 10, 2005

LABORATORY: MGA Research Corporation

CONTRACT NO.: DTNH22-03-D-11002 DELV. ORDER NO.: #3

LABORATORY PROJECT ENGINEER'S NAME: Jeff Lewandowski

TEST SPECIMEN DESCRIPTION: 2005 Mercedes C230 Passenger Car

VEHICLE NHTSA NO.: C50500 VIN: WDBRF40J75F607909

MFR: DaimlerChrysler

APPARENT TEST FAILURE DESCRIPTION: The 5<sup>th</sup>% Driver Dummy had a Tension Extension Neck Injury of 1.0 at a 27.1 ms time during a Position 1 (Chin on Module) Low Risk Deployment test.

FMVSS REQUIREMENT, PARAGRAPH S S.25.3 / S.25.4 :  
Neck Injury (Critical values: Tension = 3880N; Extension = 61Nm) The Neck Injury value shall not exceed 1.0 at any time during the low risk deployment event.

NOTIFICATION TO NHTSA (COTR): Charles Case

DATE: 3-10-2005 BY: Audrey Hale

REMARKS: